Newton Barton 49

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# Alter et Idem,

# *A NEW REVIEW,*

## No. I.

For a SUMMER MONTH in 1794.

——— ut aliis prodessem.

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ADVER-

## ADVERTISEMENT.

GO where you will, you meet with the *Reviews*; every ſopha, chimney-piece and parlour window ſupply the recent numbers of them. We are glad to obſerve this; for, beſide the entertainment which they afford, they have certainly a tendency to raiſe a ſpirit of enquiry, to form the taſte of thoſe who read, and to excite an emulation in thoſe who write.

The endeavours of our Society are limited to one of theſe objects, that of raiſing enquiry; and if it is expected (as it reaſonably may be) that a New Review ſhould contain ſomething new in it's plan, it will ſoon be ſeen that our plan differs materially from that of other Reviewers: for, while their province lies in criticizing the beauties or defects of Works pro-

 feſſedly

feſſedly finiſhed and voluntarily publiſhed by their Authors; we make it the principal part of our taſk, to exhibit the ſubſtance of ſuch little tranſient half-digeſted performances, as we have diſcovered by accident and reſcued from the duſt of the neglected ſhelves on which they lay, and which would never, but by our means, have ſeen the light at all.

It may be thought indeed that the Articles, which we thus bring to view, might as well have continued to moulder where they lay; but we have rather imagined that, although they may have no great intrinſic merit of their own, they may poſſibly furniſh hints, which (according to the motto of our title-page) others may turn to better account. And however whimſical ſome of them may appear, we are juſtified in producing them, ſuch as they are, by the paſſage of Fontenelle; "Que les hommes ne peuvent, en quelque genre que ce ſoit, "arriver à quelque choſe de raiſonnable, qu' après avoir, en ce "même genre, épuiſé toutes les ſottiſes imaginables."

ARTICLE

## ARTICLE I.

### A NARRATIVE OF AN EXCURSION FROM CANTON INTO THE INLAND PARTS OF CHINA.

THE Narrative from which the following pages are taken was drawn up by one of the Officers on board the Lyon, in the ſuite of a noble Lord now employed on a public expedition to China. It was ſent by the Author from Canton overland to Peterſburgh, by one of the Ruſſian merchants who travelled with the laſt Caravan, and was brought from Peterſburgh in the ſhip Czar, lately arrived in the Thames from Ruſſia. It has been handed about in manuſcript for the amuſement of the author's friends, and by their permiſſion we are enabled to offer our readers an extract from it, which may ſerve as a ſpecimen of the very extraordinary accounts, which,

which, at the return of the Lyon from China, the public may expect to receive of that very extraordinary country.

" Our party (ſays the Traveller) had proceeded in this man-
" ner for ſeveral days, during which the inconveniences which
" we ſuffered from the duſt and heat were compenſated by
" the ſtriking novelty of the various objects which every
" where met our eyes: at length we arrived at the bank of
" the river Nova in the province of Keitcheu, which taking
" a northerly courſe, after meeting with ſeveral other rivers,
" falls at laſt into the great flood of Kiang, near the mouth
" of which flood ſtands the celebrated city of Nankin.

" It was no ſmall ſatisfaction to us, while travelling in ſo
" hot a climate, to learn from the interpreters, that our road
" would lie for many miles along the banks of this river: we
" followed the courſe of it accordingly, for the whole of that
" day and a part of the next, when we came to a place, where
" it forced it's way through a very mountainous diſtrict, and
" the road, for the ſake of traverſing a more level country,
" was drawn in a direction diſtant from the river. We were
" juſt upon the point then of quitting it's banks and were
" expreſſing the regret which it cauſed us, when one of the
" guides happened to mention ſome Bridges, which were

" thrown

" thrown over the river a few miles lower down: our cu-
" riosity, from the description which he gave of them, was
" much excited, and though we had already been delayed
" by many unforeseen accidents and stood a chance of being
" benighted in an unknown country, we yet resolved to go
" and see the Bridges.

" Leaving our horses then to graze at the river-side in the
" care of the servants, we struck out of the main road,
" and after mounting the hills in a very toilsome walk of an
" hour and a half, we came to the edge of a prodigious preci-
" pice of rock, at the bottom of which the river flowed, and
" from which we had one of the most romantic views the
" imagination could conceive. The opposite bank was equally
" bold and abrupt with the precipice on which we stood, and
" it seemed as if it must have been by some violent convul-
" sion of nature, that the solid rocks had thus been rent
" asunder to give a passage to the river: the woods, contrasted
" here and there with lawn, hung feathering to the water's
" edge; whilst the river stretching out, near at hand, into a
" beautiful winding reach between the rocks, afterwards
" disappeared behind them; till breaking out again at the
" distance of three or four miles, it there spread itself into an
" extensive lake, which was bounded by a most elegant and

" varied outline of very lofty mountains. Thoſe who may
" have viſited St. Vincent's Rocks near the Briſtol-Wells, may
" form an accurate idea of the ſcenery around us, as more
" than one of us, who had been there, were immediately
" ſtruck with the remarkable reſemblance between the two
" ſpots. After reſting ourſelves a little while and at the ſame
" time enjoying the charming proſpect before us, we walked
" along the edge of the precipice for about a quarter of a
" mile, when one of the Bridges, till then obſtructed by a pro-
" jecting angle of the rocks, broke ſuddenly upon our view.

" The height of the precipices, on each ſide, above the level
" of the river, muſt have been near 300 feet, and their diſtance
" from each other at the ſummits, about 220; at the ſcite of
" the Bridge this laſt diſtance was contracted, by a perpendi-
" cular pier of maſonry on each ſide, of a ſtrong but elegant
" form, to about 180 feet. On the top of theſe piers reſpec-
" tively lay ſix huge long bars of iron, ſecured in their places
" as well by their own enormous weight as by cramps in
" the rocks: theſe bars each terminated in a maſſive hook,
" and from the hooks were ſuſpended as many great chains,
" the links of which diminiſhed in ſize however in proportion
" to their diſtance from the hooks: the chains were of ſuch a
" length as to reach 70 feet (reckoned in a horizontal line

" from

" from the top) on each ſide reſpectively over the river, and " were faſtened at their other ends to as many light beams of " timber of 40 feet in length: theſe beams, being ſecured " from warping by iron cramps beneath them, and being, to- " gether with the chains, overlaid with a floor of about 12 feet " width and guarded by a rail at their edges, the Bridge was " complete, with the addition only of two uprights at each " end of it (as in Fig. 1, Pl. 1.) for the double purpoſe of " helping to ſupport the weight of the chains and correcting " their flexibility, as without ſome ſuch corrective whenever a " weight ſhould come upon the point A, the Bridge ſinking " in that point, would have riſen on the oppoſite ſide towards " B, by which means a conſtant wearing of the links of the " chains muſt have enſued and the Bridge itſelf have been " unſteady and unſafe.

" After taking a haſty ſketch of it with our pencils, we " walked over it and found all firm, ſolid and ſubſtantial, ſuf- " ficiently ſo for horſes as well as foot-paſſengers, and, as we " judged indeed, for carriages, provided they were of no very " heavy burden. Notwithſtanding this however, we could " none of us diveſt ourſelves of a certain tremor on our nerves, " eſpecially when, looking over the rail in the center, we

" found ourſelves at a height from the ſurface of the river,
" then bank-full, more than doubly ſufficient for our 64, the
" Lyon, to have ſailed under us with all her canvas ſpread.

" We had moſt of us ſeen the Iron-Bridge in Shropſhire,
" but compared with the one before us, we thought it com-
" plicated and heavy; for what chiefly ſtruck us in this was
" the ſimple lightneſs of it's conſtruction. Upon our expreſſing
" the ſurprize it gave us, our guides ſaid that ſuch a mode of
" building Bridges was by no means uncommon in China;
" that they had the ordinary name of Whang-Tcheu or Spider-
" Bridges, from their fancied reſemblance to the web of that in-
" ſect; but that that reſemblance was much leſs ſtrong in the one
" before us than in ſome others of them, as the latter were
" frequently made, in ſituations ſimilar to the preſent, but of
" greater breadth, of large cable ropes, which, falling by their
" weight into a natural curve, were faſtened together by cord-
" age parallel to each other, overlaid with a floor, guarded by
" a net-work railing and kept firm by bracing uprights like
" the former; that the mode of conſtructing thoſe made of
" chains alſo was to traverſe the rivers by ſtrong cable-ropes,
" by which the chains were ſuſpended in their places, at firſt;
" till the ſmiths, being let down in baſkets by running-ſlips
" upon the cables, ſhould have faſtened the ends of the chains

" on

" on each ſide to their reſpective beams; and that, in the ſame
" province in which we now were, upon another river which
" took a long courſe through a like mountainous ſort of
" country, there were ſeveral of the Cable-Bridges, one at
" Naut-Chang, another at Nang-Ti, and another of 250 feet
" in horizontal length, at Pantcheu.

" They farther added, that about 10 or 12 miles off (and
" by a curious coincidence, the place as they deſcribed it, very
" much reſembled the Paſſage of the River Severn at the
" diſtance of 10 or 12 miles only from St. Vincent's Rocks,
" to which we had juſt been induced to liken the ſcenery be-
" fore us) at the mouth of another great river liable to very
" heavy floods, which ſerved to feed the large lake before-
" mentioned to be then in our view, there was another Bridge
" ſtill more remarkable. The river in the part they deſcribed
" was, according to their account, no leſs than two miles and
" a half broad: this breadth was contracted by a continued
" ſucceſſion of Bridges (extending from both banks and com-
" poſed partly of thoſe of the common arched European form
" and partly of thoſe of the Chineſe form already deſcribed)
" to the narrow ſpace of about a quarter of a mile, in which
" laſt ſpace was the main ſhoot of the river. They repre-



" ſented

" ſented that, between one bank and the other, there were here
" and there ſmall iſlands of rock, juſt as we recollected there
" are at the part of the Severn before-mentioned, which, like
" them alſo, were liable in high floods to be covered with
" water; that upon theſe iſlands, which themſelves furniſhed
" ſtone of the beſt ſort, was erected a ſucceſſion of common
" arches, of more or leſs height as might be neceſſary to ren-
" der the road on the top of them level; and that at the ends
" of thoſe arches were erected ſtrong circular towers about 30
" feet high; built circularly, in order that cattle, by means of
" a ſpiral road round them, might mount eaſily to the top of
" them; and of ſuch a height and ſtrength, becauſe they were
" the ſprings or ſupports of Cable-Bridges ſimilar to thoſe
" before deſcribed. This ſucceſſion of Bridges (they ſaid) was
" by no means ſtraight from bank to bank (though the paſ-
" ſages through the arches were of courſe all parallel to each
" other and to the river in order duly to meet the current) but
" bent into curves or angles according to the poſition of the
" iſlands in reſpect to each other, and that an opinion pre-
" vailed in the country that they were ſtronger from being
" bent into thoſe curves and angles, as leſs reſiſtance was by
" thoſe means oppoſed to the current in any one point; the
" middle or main ſhoot of the river, being thus reduced to the
" narrow ſpace before-mentioned, though ſtill too wide even

" for a Cable-Bridge, was croſſed (they ſaid) without danger
" or difficulty by a Flying Bridge of Boats, which roſe and
" fell with the flood and admitted a free paſſage to all veſſels
" up and down.

" The more we liſtened to our interpreters, the more we
" felt our curioſity raiſed, in reſpect to the other Bridges they
" talked of, and as the laſt which they mentioned was ſtated
" to be only about 10 miles off, we had a very ſtrong deſire
" to viſit it; but as it was then too late to think of it that day,
" and we were engaged to be at Ti-Sing by the next at noon,
" after taking a farewell look at the Bridge near us and the
" beautiful ſcenery round it, we began to deſcend the hills to
" the ſpot where we had left our horſes with the ſervants."

Whatever the Reader may think of the particular Extract which we have inſerted above from the Narrative, we can aſſure him that there are many parts of the original which will be found more wonderful by far; of which we have no doubt he will himſelf be convinced, when the Author, on his return, ſhall have given his laſt corrections to the Work, till when the publication of it is poſtponed. We will juſt obſerve however (notwithſtanding we have already much exceeded our limits) that as it

appears there is a ſtriking ſimilarity between the ſcite of one of the Bridges he deſcribes and St. Vincent's Rocks near Briſtol, and as we remember to have heard ſome years ago that a ſum of 5000l. had been left to the Corporation of that city in truſt for the perſon who ſhould conſtruct a Bridge from thoſe Rocks to the oppoſite bank of the River Avon, we ſhall recommend our Traveller at his return, to offer his ſervices to that Corporation, and we heartily wiſh him all ſucceſs in obtaining the five thouſand pounds.

ARTICLE

## ARTICLE II.

### A PROJECT FOR DIRECTING AN AIR-BALLOON.

THE only means we believe, by which it has been hitherto attempted to give a direction to an Air-Balloon, have been by oars, by ſails and by artificial wings; all, unhappily, with the ſame failure of ſucceſs. The two firſt were tried from the analogy ſuppoſed to ſubſiſt between navigating the air with a Balloon and the water with a boat; but that analogy in truth fails, ſince the former, the Balloon, has but one medium, through which it moves and to which it expoſes a conſiderable area to be acted upon by the wind; whereas the boat, moving through the air though upon the water, has the advantage of the water as a ſecond medium, againſt which a reſiſtance being

raiſed by the oar, the boat, yielding to ſuch reſiſtance, goes in a direction oppoſed to it and is thereby ſubjected to guidance; and as the ſame reſiſtance is produced in ſailing by the practice of tacking and retacking, whenever the wind is not perfectly favorable; the ſecond medium is thus in like manner brought into uſe in that art as it is in rowing.

If ſuch has been the cauſe why all endeavours to direct a Balloon by means of oars and ſails have failed, the reaſons why artificial wings have not ſucceeded may be theſe; firſt, the greater power which the wind acquires over the Balloon from the additional area which the wings expoſe to it's influence, and ſecondly, the want of a correct imitation of nature in the making of the wings and the mode of working them when made.

In regard to the laſt a conſiderable error ſeems to have prevailed; for if it was intended by the uſe of artificial wings to imitate the flight of a bird, it ſhould not have been forgotten that a bird has poſitive gravity in the air, which a Balloon has not, and that that gravity is probably a neceſſary conſtituent, adminiſtering in part to the bird's flight as well as the flapping of his wings, and that his power of flying may be in all likelyhood the reſult of a certain ballance between the two.

It

It might be worth while then, the next time an experiment ſhall be made upon a Balloon with wings, for the Aeronaut to take up a reel with him, the line of which ſhould run out as he mounts, from a weight remaining on the earth, juſt ſufficient, if the reel were ſtopt, to counteract the tendency of the Balloon upwards; and that when he is high enough to try the wings, he ſhould at the ſame time wind the reel backwards, ſo as to give a deſcending motion to the Balloon by means of the weight (the ſame effect might be produced by letting out a ſufficient quantity of inflammable air) and thereby give a poſitive gravity to the Balloon, correſponding with that poſitive weight of his own, which a bird overcomes by the motion of his wings.

But without hazarding any farther conjectures ourſelves on this ſubject, we ſhall diſcharge our duty more properly as Reviewers, if we endeavour to convey to the Reader an idea of the Treatiſe before us, and we think we cannot do that better than by tranſcribing the Author's Preface, of which indeed his Treatiſe itſelf profeſſes to be only a more enlarged and ample developement.

" On

" On reading lately (ſays the Preface) the Poem of " The " Botanic Garden," I was much ſtruck by one of the Notes " to it written by the learned Author of the Poem, purporting " that the only means by which a direction would ever, pro- " bably, be given to an Air-Balloon, would be by the repulſive " force of gunpowder or by ſteam: the reaſon why the Note " intereſted me as it did was, that I had myſelf conceived that " the means ſuggeſted in it might be made ſubſervient to the " ſame purpoſe, and under that perſuaſion had ſent a Paragraph " to a public newſpaper, which detailed a project for the ap- " plication of the former to that end, of a date nearly coeval " with the invention of the Balloon itſelf.

" I never heard that any notice was taken of my Paragraph, " though at that time much of the public attention was di- " rected to the ſubject of Air-Balloons: the contents of it " therefore went out of my head again, till my recollection of " them was revived by reading the Note above-mentioned: " feeling myſelf, thereupon, ſtrengthened by the very weighty " authority of the Writer of that Note, I was induced to re- " conſider my original idea, and have at length expanded it to " the compaſs of the preſent Treatiſe, to which, inſtead of any " further preface, I ſhall prefix a copy of the Paragraph to " which I allude.

" Morning

" Morning Poſt, January 15, 1785.——In order to
" give a horizontal direction to an Air-Balloon, one can reſort
" to no better means perhaps than the repulſive force of gun-
" powder. That it ſhould be adequate to the deſired effect
" can ſcarcely be doubted by any body, who conſiders the vio-
" lence with which a cannon recoils, or the rapidity with
" which a ſky-rocket mounts in ſo ſhort a time as it does to
" ſo prodigious a height: the velocity of the rocket's flight
" and the weight of the cannon ſhew this force to be im-
" menſe: what then ſhould be it's effect on a Balloon, which,
" notwithſtanding all the abſolute weight of it's appendages,
" being ſtill relatively lighter than a feather in the air, would
" not oppoſe the leaſt weight whatever to be overcome? It
" may be ſaid perhaps that it would be dangerous in the ap-
" plication of it: but, beſides that the Balloon might be eaſily
" fortified againſt all riſque, it ſhould be recollected that this
" force, being repulſive, would be rapidly driving the Balloon
" from the ſparks and out of the reach of danger.

" In order to procure a continued ſucceſſion of force in the
" ſame direction (which is the next deſideratum after the force
" itſelf is found) one might avail one's ſelf of an imitation of
" either of the machines below deſcribed.

" In the Arſenal at Bruſſels there is a model (or perhaps it may " be the original) of a piece of Artillery, which belonged for- " merly to the Emperor Charles V. It conſiſts of one ſolid " piece, but has ſeven touch-holes and as many bores, which " are ſo contrived that you may diſcharge each ſeparately at " what intervals you pleaſe, by means of running-plates " made to prevent the communication of the powder in the " different touch-holes, or, by lifting up the running-plates, " let them off all together, and of courſe, either collectively " or ſeparately, in the ſame direction.

" The model of the other machine (which, it is ſaid, was " invented by the Engliſh in the time of Louis XIV. for the " purpoſe of bombarding St. Maloe's) is ſhewn in the Palais- " Royal at Paris. It conſiſts of ten or twelve cannon, which " diverge horizontally from a point in which all their butts " meet; the match being once applied, they would all go off " in ſucceſſion, and by means of the machinery on which they " are placed and which is incloſed in a frame of the ſhape of " a drum, each cannon, before it is diſcharged, would be " brought by the recoiling force of the preceding cannon, into " the ſame direction as the one had which ſo preceded it.

" It

" It is now more than a year ſince the thought of apply-
" ing the repulſive force of gunpowder to the direction of a
" Balloon was firſt conceived; but it has never yet been tried."

Such is our Author's Preface, and as we have already ſaid that his Treatiſe amounts to little more than a developement of the project ſuggeſted in it, we may be excuſed if we do not in this Number enter into a farther conſideration of it (which indeed our limits would ſcarcely ſuffer us to do:) we will juſt mention however that he is diſpoſed to prefer the longer-continued force of a rocket to the ſhort exploſive force of a gun, and that he deſcribes a variety of different ſyſtems of rockets which he has conſtructed, chiefly in imitation of the Palais-Royal machine mentioned in the Preface.

But the Preface expreſſes that the ſcheme " had never been tried."—It does, and we apprehend we might ſay the ſame now, though nine or ten years have ſince elapſed: for though it has been no uncommon thing, we believe, for Aeronauts to diſcharge a gun by way of ſignal, we are not aware that the effects of it have been in any degree obſerved, much leſs that any attempts have been made to encreaſe the effects which may have ariſen, by contriving any means of giving a continued ſucceſſion to the impulſes of force in the ſame direction, ſo as

to counteract the operation of the wind; or that any care has been taken to apply the force (as there neceſſarily ſhould be, in order not to produce a mere rotatory motion) in the center of gravity, or rather the center of levity, of the Balloon.

But would not the beſt way of reviewing this project be, to put it to experiment? Perhaps it might be ſo, and it would have been a uſeful hint to have given our Author, before he took the pains to build up a long Treatiſe upon the contents of his Preface: but we do not know that it is a Reviewer's province to try experiments: certain it is, that it forms no part of what we profeſs; and indeed we apprize the gentle Reader, once for all, that if he expects from us the reſult of experiments, he had better throw aſide our Review: for though we preſent him with ſeveral other plans and projects, not any one of them, to our knowledge, has ever yet been tried.

ARTICLE

## ARTICLE III.

### SCHEMES FOR A PERPETUAL MOVEMENT.

—— Tribus Anticyris caput insanabile.

Is the problem of a Perpetual Movement to be eternally unsolved or no? We believe some Writer has attempted to prove it impossible to be accomplished; if so we heartily wish his demonstration were more extensively known, or more generally admitted, for we think that more brains are addled by a vain search after this Philosopher's Stone, than by any other cause whatever.

The papers from which the present Article is compiled came into the possession of one of our Society, on occasion of his

being appointed a Committee of an unfortunate Gentleman, whoſe mind was too weak for theſe diſtracting ſpeculations and broke down at laſt under the preſſure of them. Such a farrago of mechanical chimeras as was brought to light on inſpecting his papers, was never before exhibited to view; there was ſcarcely a looſe ſheet or even the back of a letter, that was not ſcribbled over with rude drawings of diagrams, and pulleys, and wedges, and wheels.

He ſeems to have imagined at one time that he had attained the object of his wiſh, by means of a common weather-cock, which, as it muſt in the ordinary courſe of nature vary to a given point in a given time, would neceſſarily communicate repeated impulſes of force in a given direction and thereby create a Perpetual Movement: but he appears to have thought no more of this ſcheme, after hearing that an attempt, upon a ſimilar principle, had already been made by means of the neceſſary expanſion or contraction, in a given time, of quick-ſilver in a tube.

In another Plan found amongſt his papers (Vid. Fig. 2, Pl. 1.) he made uſe of a tide-river, the water of which was to be conveyed into a reſervoir (a) through a pipe (b) which pipe would be

be filled every time the tide ſhould riſe, the plug (c) being then forced up by means of the floats (d, d, d) which plug and floats would be kept in their places by means of fixed irons (e, e) with rings at their ends for the plug-rods to run through; the plug to be very heavy and upon the efflux of the tide to fall into the plug-hole ſo as to intercept water enough in the reſervoir to ſupply the ſtream (f) till the reſervoir ſhould be repleniſhed again at the return of the tide. But though he ſeems to have imagined that this plan might have been brought into uſe, by means of pipes, at very conſiderable diſtances from the tide and have been ſerviceable therefore in ſituations remote from rivers, yet he appears at length to have thrown it aſide with indifference, as not anſwering (any more than the former one in which he made uſe of a weather-cock) to the true idea of a Perpetual Motion, the firſt cauſe of the force being altogether extrinſic.

The period at which his mind firſt began to give way (if we may judge from the many ſtrange blots and blurs with which the papers on this ſubject are covered) was upon his conceiving that a ſponge might be applied to the practical ſolution of this problem; but though he ſaw clearly enough from the weight or power which a ſponge gains when filled

with water, that if the means could be deviſed of alternately filling and emptying it, a Perpetual Movement muſt reſult; yet he ſeems to have exerted all his efforts to produce ſuch an alternate motion ineffectually, and at length to have abandoned that attempt altogether.

But the project which, in the end, made the commiſſion of lunacy neceſſary, was the one which we ſhall now detail from the paper itſelf which contains it: it completely overpowered his mind, and we are perſuaded from the manner in which the word Ευρηκα is ſubſcribed to the paper, (which makes it not unlike one of the flouriſhed pages inſerted by Sterne in his Triſtram Shandy) that the poor man became crazed at the very moment of writing that word: he is now conſtantly talking of his wheel and cylinder, and we much fear it will be a long while before he will be able to undertake the management of his own affairs again: this paper ſhall ſpeak for itſelf.

" Let a; be the axis of a wheel (Vid. Fig. 3, Pl. 1) b, b; a
" hollow cylinder in the place of one of it's ſpokes: c; an iron
" ball—d; a conical driver on which the ball (c) is to fall,
" which driver (d) having before been ſuſpended (by e; a ſmall
" ſteel watch-ſpring, ſomewhat raiſed within the hollow of
" the cylinder) paſſes (through f; an aperture in the circum-

" ference

" ference of the wheel) and thereby ſtrikes upon g, g, g, a
" rod or arm of a ballance, in the ſhape of the ſegment of an
" outer circle concentric with the wheel, and terminating in h,
" a hinge, fixed upon i, a ſupport for the hinge; on the other
" ſide of which hinge (h) is k, the other arm of the ballance,
" ſo placed as, upon each impulſe given by the fall of the
" ball on the driver, to ſtrike l, a catch fixed on the edge of
" the circumference of the wheel: o, o, is a plane of ſteel in-
" clined at a ſmall angle with the circumference of the wheel
" for the purpoſe of meeting the driver (d) in it's paſſage up-
" wards and thereby gradually preſſing the driver back again
" and ſuſpending it lightly on the ſpring. p, is a ſmall weight
" fixed to k, one arm of the ballance, in order to make it pre-
" ponderate a little on that ſide, ſo as to return always into
" the poſition in which it ſtands in the figure, by the time that
" a new impulſe is given to the other arm (g, g, g) by the
" driver.

" The moving-force here is the ball, which falling on the
" driver, ſtrikes ultimately, by means of the hinged rod, upon
" the catch of the wheel, and gives it, moving as it was be-
" fore, a new motion in proportion to the ball's weight. o, o,
" is placed a little to (what may be called, with reference to a
" map) the north of the weſt-end of the wheel, ſo as to exe-

" cute it's office of preſſing back the driver and ball at the " time when the latter would ceaſe to operate, by it's diſtance " from the center of the wheel, for the increaſe of the force " in the direction required. The uſe of o, o, (the inclined " plane) is for the purpoſe of ſuſpending the driver lightly " upon the ſpring, leſt, from the velocity acquired by the " movement, it ſhould not fall back again but continue fixed " at the extreme point, to which it ſhould have paſſed through " the aperture in the circumference of the wheel. G, g, g, is " made of the ſhape and length deſcribed in the figure, in " order to be ſure of it's meeting the driver at whatever point " of ſpace the ball ſhould propell it. Figure 4, is the driver " drawn larger; x, is a notch cut in it, that it may hitch the " more readily on the ſpring, and y, is the aperture in the " circumference of the wheel. Figure 5, is the ſpring like- " wiſe drawn larger; in which r, is one of the ſides of the hol- " low cylinder, and s, the ſpring itſelf made of a piece of a " ſteel watch-ſpring. A ſingle ball ſhould generate a ſufficient " force to keep up the movement, if the wheel be equally " loaded at it's circumference, and when a greater power is " required, a like cylinder with it's ball might be applied at " each quadrant of the wheel."

Having

Having preſented the Reader with this laſt ſcheme in the words of the unfortunate Projector and accompanied it with the figures drawn by himſelf, we hope that no farther comment or illuſtration will be expected from us: we are in truth aware of the danger of ſuch purſuits, and perfectly conſcious that if we embarked in them, we ſhould ſoon ſtand in need of Committees ourſelves, inſtead of diſcharging that duty towards another; and as we ſhall have full occaſion for our own brains in the future exerciſe of our functions as Reviewers, we ſhall leave the examination of this project, to thoſe who have ſtronger heads and leſs fear of the conſequences than we have.

ARTICLE

## ARTICLE IV.

### A COLLECTION OF POETRY.

IF we do not upon all occaſions acquaint the reader with the means by which we have become poſſeſſed of the Articles ſubmitted to him, we hope that his ſagacity, upon which we throughout repoſe ſome little reliance, will ſuggeſt to him a reaſonable motive, which may have prevented us from ſo doing: we are not indeed without one for our ſilence on the preſent Article, though, as we do not aſſign our motive, we ſhould not wonder if it were conceived that we are in fact aſhamed of declaring from what quarter we procured this collection: however that may be, we can ſafely aſſure the Reader, that whether by the right of prime occupancy or ſome other equally valid, we have obtained all our Articles fairly at leaſt,

and

and are well entitled to extract from them what we pleaſe: we ſhall offer him then two ſpecimens of this collection, an Inſcription and a Tale; but in regard to the former, it may be neceſſary to apprize him, as the Author has himſelf done in a Note to it, that the firſt ſtanza contains alluſions to the particular ſpot where the object for which it was intended, is built.

## INSCRIPTION FOR A ROOT-HOUSE.

I.

Whether you've ſtray'd along the terraſs'd height,
Or loiter'd up the ſteep, or croſs'd the grove,
Here pauſe a while, and with a pure delight,
Free let your eye o'er nature's beauties rove:
Survey thoſe ſwelling hills; the embow'ring wood
That canopies their tops; old Severn's flood
Broad, clear, and white with frequent-paſſing ſails;
Then follow with your eye yond diſtant vales,
Where gladd'ning plenty ſmiles—Yet, ſtranger, ſay,
Theſe rural objects may not pleaſe?—Away,
Haſte to the noiſy city back! Some vice,
Offspring of cities, pride or avarice,
Hath robb'd thee of thy love of nature; haſte—
This thatch, theſe moſs-grown roots for thee were never plac'd!

II.

But if, ſtill charm'd, ſuch tranquil ſcenes you view,
The rock, the ſtream, the mountain and the plain;
If too (congenial taſte!) your heart be true
To ſocial virtue and her hallow'd train;
If friendſhip, independent honor, ſenſe,
Manners or talents o'er your life diſpenſe
Their happy influence, welcome! Here retreat
From winter's driving ſtorm and ſummer's heat,
Thrice-welcome! And whene'er you wander here,
For contemplation or for mirthful cheer,
Should you, alone, ſome favorite page peruſe,
Pourtray the landſcape, woo th' inſpiring muſe,
Or, midſt enlivening friends, the table ſpread—
May peace and all the rural genii hover o'er your head!

---

## THE STORM.

I.

The low'ring clouds had burſt around;
In one wide deluge ran the floods,
The pealing thunder ſhook the ground,
And wind and lightning reft the woods:

Yet

II.

Yet midſt theſe terrors loud and wild
Acis and Jeannette ſtray'd along;
Her thoughts the ſweets of home beguiled
His, a gay jeſt or cheering ſong.

III.

Not ſo could they whom vices ſtain,
By livid flames ſee foreſts riv'n,
Yet heedleſs the rude ſtorm ſuſtain,
Nor dread the ſudden wrath of Heav'n:

IV.

No! Such, from conſcious guilt diſmay'd,
Deep in ſome cave their heads would hide,
Whilſt, hand in hand, this good pair ſtray'd
In eaſe and peace, till now they ſpied

V.

Their home: of health and joy the ſeat,
Pride of a valley gay and green
It ſtood; each trav'ler ſaid 'twas neat,
And ſtopp'd his horſe to view the ſcene.

VI.

Three babes, like cherubs, from the door,
With extacy, impatient preſs'd
Their father's bleſſing to implore,
Or neſtle on their mother's breaſt.

VII.

Much had the ſtorm their fears alarm'd,
Much had they wept their parents' ſtay,
But, happy now, their griefs they charm'd
And fears forgot in mirth and play.

VIII.

'Mid ſuch fond greeting, o'er the place
Nearer the forked lightning flaſh'd,
And from his prattlers' dear embrace
Poor Acis on the threſhold daſh'd;

IX.

Daſh'd lifeleſs.—From his manly face
Swiftly the roſeate tints decay,
Diſtortion mars each ſhapely grace,
And every charm fades faſt away.

X.

But who can hapleſs Jeannette paint,
As o'er her huſband's corſe ſhe hangs?
Who, whilſt the children pour their plaint
Aloud, can count her inward pangs?

XI.

Wrapt in exceſs of woe (by turns
Her eyes on Acis fix'd and heav'n)
Mute, motionleſs, her loſs ſhe mourns;
Then, ſudden, to diſtraction driv'n,

XII.

Cries piteous, as ſhe utterance finds
For words and tears, "Muſt I ſurvive?
"Here dart, ye flames; blow here, ye winds,
"And cruſh the veryeſt wretch alive!"

XIII.

But when the children now ſhe eyes,
As, clinging round, they ſob and moan;
"Yet would I live for you, ſhe cries,
"For who'll protect you, when I'm gone?

XIV.

" He who was late your beſt kind friend,
" Your hope, ſupport and guide, lies low;
" Weep on then—tho' my heart you rend—
" I have no comfort to beſtow:

XV.

" Your infant helpleſſneſs to rear
" My ſtrength will boot but little: ſoon,
" Soon, my ſweet babes—too well I fear—
" By fraud and pow'r you'll be undone!

XVI.

" Fierce wolves, or foes than wolves more fierce
" Will find our ſhepherd is away;
" Swift our unguarded fold they'll pierce
" And, ruthleſs, faſten on their prey."

XVII.

Prophetic truths! Th' oppreſſor's hand
Soon on their heads is ſeen to fall,
And, outcaſts from their houſe and land,
By ruffian arts they loſe their all.

XVIII.

Now friendleſs, poor and ſcorn'd they dwell,
By the road-ſide, in yond ſtraw ſhed;
There they for alms their ſtory tell,
Or ſpin, the live-long day, for bread.

XIX.

—O ye, who melt at tales of woe,
Whoſe hearts at this with pity bleed,
In mercy to the mourner, go,
And ſpare one mite her babes to feed:

XX.

And ye, who near the gulph's dark brink
Now gaily ſport on pleaſure's waves,
Know that, like Acis, you may ſink
In one ſhort inſtant, to your graves:

XXI.

Howe'er in ſunbeams now you baſk
Your inſect-wings, know, death-fraught night
Faſt comes and ſure; then learn this taſk,
Betimes to rule your lives aright.

# ARTICLE V.

## TACTICS.

**Ove, Diavolo; Meſſer Ludovico! avete voi pigliato tante colionirie?**

IF in comparing the ancient and modern modes of making war one may diſcover many ſurprizing differences between them, there is none perhaps more remarkable than this: that the combatant of former times went into battle loaded with a weight of armour ſufficient of itſelf, one would ſuppoſe, to unfit him for action, whereas the modern ſoldier, though expoſed to weapons infinitely more dangerous, advances to the enemy with his perſon wholly undefended. This diſuſe of armour in later times is one probably among the many extraordinary effects produced by the invention of gunpowder; for though

though ſoldiers, from the force of habit, continued for many years to accoutre themſelves in part as before, yet, after that period, defenſive armour ſeems to have been left off piece after piece and came at length to be altogether abandoned.

Still however even at this day and under the preſent ſyſtem of Tactics, if any means could be deviſed for giving greater ſafety to the ſoldier's perſon in the field, there will be no queſtion that it ought to be afforded him, provided it be not inconſiſtent with the various duties and exerciſes which it is his lot to undergo there: whether the following ſuggeſtion be of ſuch a ſort can be properly determined only by military men, and as we have no military man in our Society to criticize it, all that we can do is to mention that the papers containing it were found in the pocket of a young French Officer of the corps de Génie, who was killed in the late campaign at the affair of Lincelles: it appears from them that the perſon who drew them up, had before been in the battle of Gemmappes, and that, being ſtruck with the prodigious ſlaughter effected by the grape ſhot and muſquetry on that day, he afterwards turned his mind to the invention of ſome means of improving the ſyſtem of perſonal defenſe in modern field-fighting: the following extract forms a part of his reflections, but if the language ſhould be found inaccurate, it will be no

wonder, as the papers were worn in ſome places by the pocket and we have been obliged to ſupply the omiſſions ourſelves.

" Quand on va livrer le combat ſur mer, il eſt d'uſage " avec les matelots d'apporter leurs lits et de les ranger tout " autour du tillac, comme une defenſe contre les balles et les " mitrailles. Pourquoi le ſoldat ne pourroit-il auſſi avoir un " lit et s'en ſervir de même à ſa defenſe au jour du combat?— " Quel eſt ſon ſort actuellement? Après une longue marche " pendant toute la journée ſous le poids de ſes armes et de ſon " havreſac, il entre vers la nuit pêle-mêle avec ſes camarades " dans une tente, où il n'a rien que de la paille (s'il a même " de la paille) pour ſe coucher. Hormis la difficulté de tranſ- " porter ce ſurcrôit de baggage, je ne vois pas pourquoi il ne " pourroit pas avoir un lit tout comme le matelot; or, ſi le " ſoldat pouvoit non ſeulement tranſporter ſon lit lui-même, " mais le faire ſervir auſſi tant à ſa defenſe qu'à ſon rafrai- " chiſſement, il ſemble être parfaitement juſte de lui en don- " ner un.

" A cet effet, que chaque ſoldat ſoit muni d'une brouette, " laquelle devroit être auſſi inſeparable de ſa perſonne quand il " eſt accoutré, que ſon havreſac l'eſt actuellement; et ſi elle " etoit faite platte au lieu d'être creuſe, elle pourroit lui ſervir

" de

" de bois-de-lit, et l'élever ainſi pendant la nuit audeſſus de
" l'humidité du camp: qu'il tranſporte là-deſſus, avec ſes
" habits, armes et munitions de guerre, un matelas et les cou-
" vertures de lit ordinaires, et que le tout ſoit mis à l'abri du
" mauvais temps par une envelope de toile goudronnée. Si
" l'on diviſoit les tentes auſſi parmi les ſoldats de chaque com-
" pagnie, pour qu'ils les tranſportaſſent avec le reſte de leurs
" baggages ſur les brouettes (et, en cas de beſoin, on en pour-
" roit attacher trois ou quatre enſemble) on diminueroit par
" ce moyen et le nombre de chevaux et la quantité de fourage,
" &c. dont une armée eſt déja embaraſſée; on auroit les tentes
" toujours prêtes, ſans attendre que les chariots fuſſent de-
" chargés, et, en les ajoutant aux lits dans les combats, on
" pourroit les faire contribuer doublement, comme eux, à la
" commodité du ſoldat.

" Quant à la defenſe, les brouettes (attention faite en les
" conſtruiſant à leur légereté et à leur equilibre) pourroient
" être guidées avec facilité, et même avec viteſſe, partout où
" le ſoldat peut marcher: élevées perpendiculairement, leurs
" bras deſſus, et étayées ſur un point de leurs roües et une
" fourche de fer (faite a paſſer ſur un gond, et à reſter dans
" ſa poſition quand on s'en ſert, par le moyen d'un verrou-a-
" reſſort)

" reſſort) elles formeroient, moyennant les matelas, tentes, &c.
" un parapet à la hauteur d'appui: contre la cavalerie, elles
" deviendroient une barriere inébranlable: ſi l'on en plaçoit
" deux l'une ſur l'autre (We have given copies of this gen-
" tleman's ſketches in Figs. 6 and 7, Pl. 1 :—In Fig. 6; y, y, is the iron-prop deſcribed above, which moves on the hinge at x, through the dotted line a, b, and lies at the end of that line out of the way when it is not in uſe) avec leurs bras
" vis-a-vis les uns les autres, elles formeroient ainſi une litiere
" à deux hommes, utile en mille occaſions et toujours prête:
" et ſi l'on en fixoit aſſez, placées de même en paires perpen-
" diculairement, elles ſerviroient à tendre les tentes. En voy-
" ageant de lieu en lieu par mer, les ſoldats ſeroient déja
" munis de leurs lits, comme d'une partie neceſſaire de leurs
" baggages; et en marchant auſſi par terre, et arrivant à une
" riviere qu'ils ne pourroient pas paſſer à gué, ils pourroient
" attacher leurs brouettes enſemble et s'en faire un radeau,
" comme les Anciens, en donnant l'aſſaut à une fortereſſe, ſe
" faiſoient une defenſe collective de leurs boucliers, en les
" plaçant en forme de teſtudo.

" Le ſeul inconvenient, à ce que je prévois, qui pourroit
" reſulter de l'uſage general de telles machines dans les affaires
" militaires, c'eſt que les ſoldats ſeroient ſujets a les jetter con-

" tre

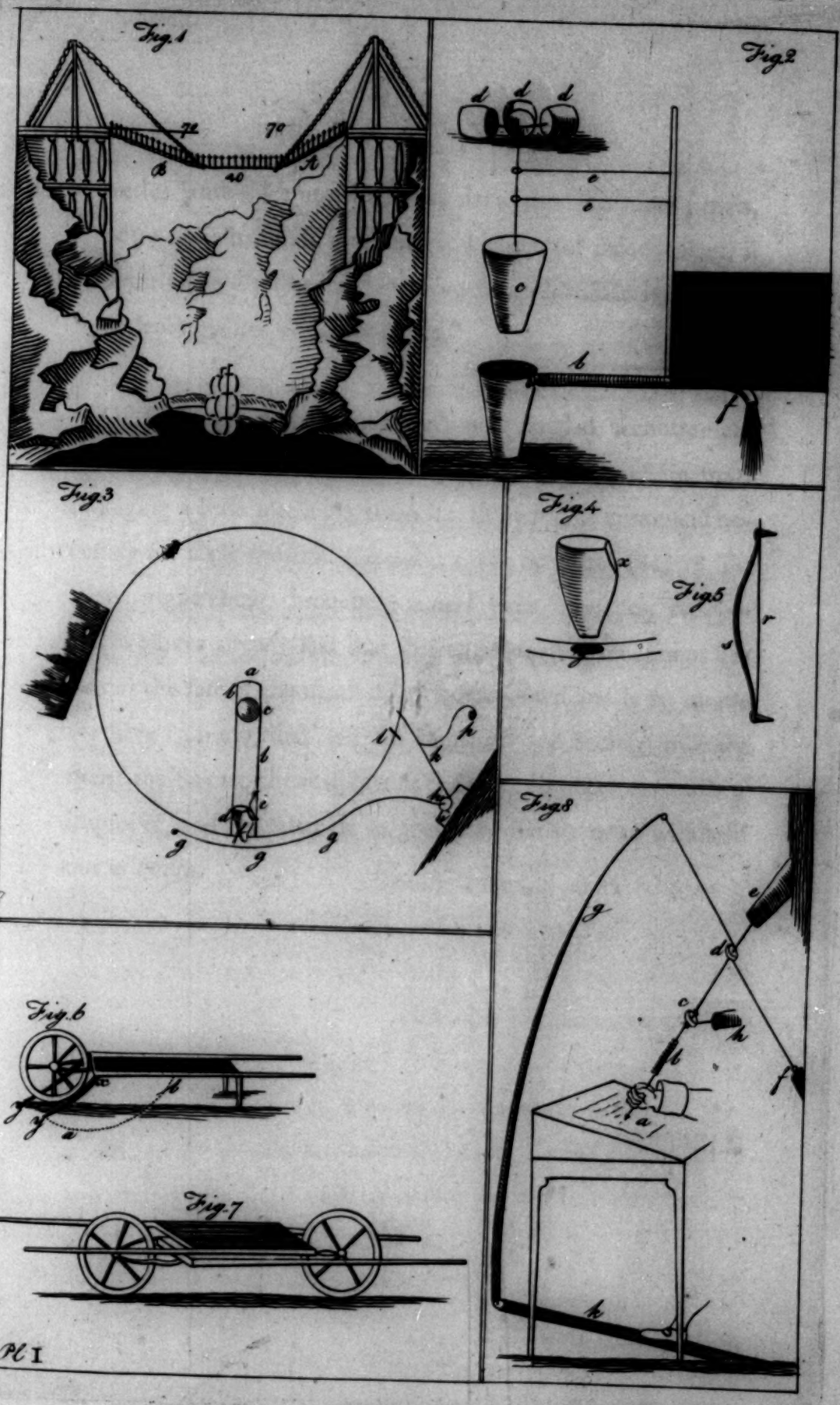
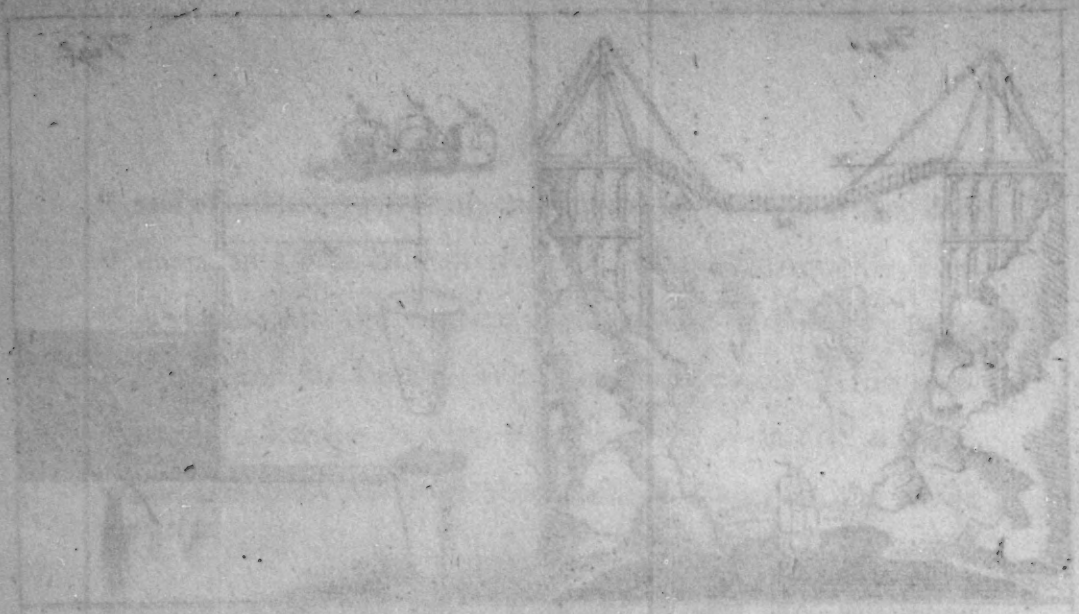
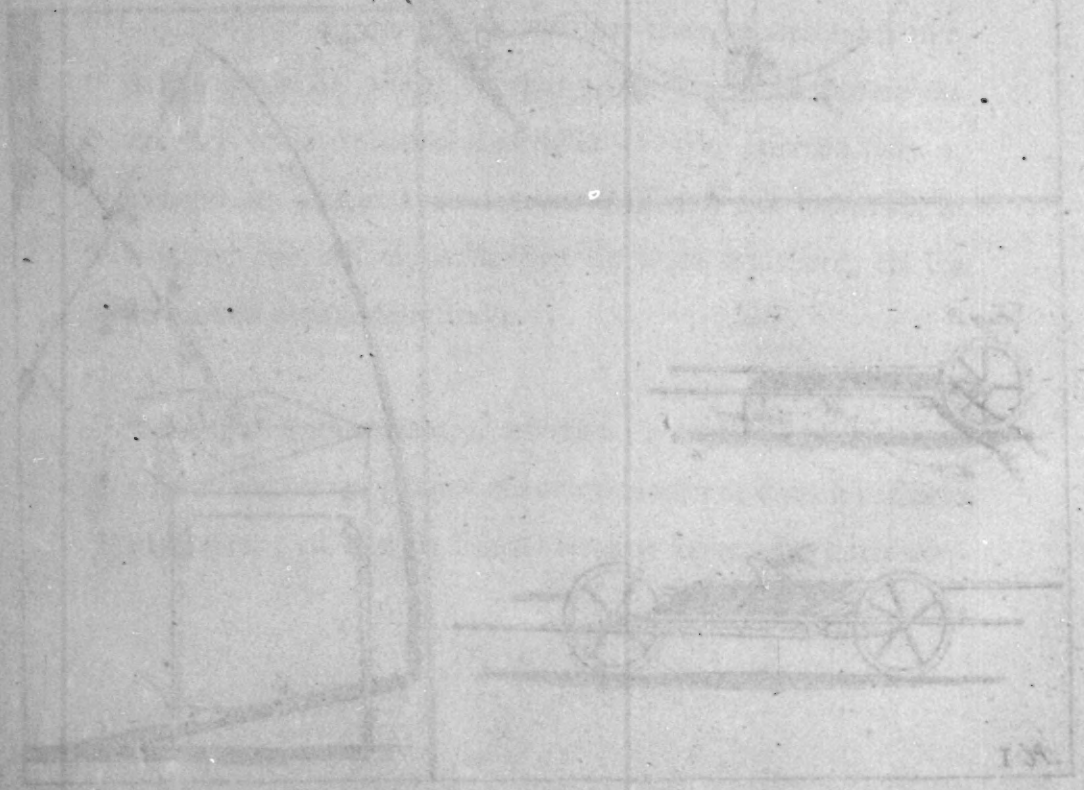


Fig.1
Fig.2
Fig.3
Fig.4
Fig.5
Fig.6
Fig.7
Fig.8
Pl I



GR III



" tre les jambes les uns des autres dans leurs évolutions; mais, " outre que l'habitude diminueroit bientôt cet inconvenient, il " ſeroit facile d'y remedier entierement, en fortifiant les devants " de leurs guêtres de lames de fer."

Of ſuch ſort is this gentleman's new-fangled accoutrement and we confeſs it is with ſome difficulty that we refrain from indulging a little pleaſantry upon it: the word of command neceſſary for theſe modern Ευκνημιδες, muſt be admirable; " To " the right about, brouettes; *wheel* your brouettes, &c."— But we have already ſaid that this unfortunate Frenchman has ſhared the fate of thouſands of his countrymen and is no more; we have ſaid too, that we are none of our Society, military men: the former circumſtance is ſufficient to make our raillery improper, and the latter is as good a reaſon for us to withhold our criticiſm.

ARTICLE

## ARTICLE VI.

### AN INSTITUTION FOR THE PREVENTION OF RIOTS.

THE Eſſay before us is of ſome conſiderable length, and, to review it properly, a greater ſpace would be neceſſary than the limits of a ſingle Number will allow us to allot to it, but as it may be ſatisfactory to the Reader to be enabled to form an idea of the whole of the plan ſuggeſted in it, even though he ſhould have but an outline for that purpoſe, we ſhall endeavour to compreſs the ſubſtance of it into a narrow compaſs here, and reſerve our obſervations on it for our future Numbers.

The Author opens his Eſſay with ſome remarks on the inſufficiency of the means hitherto deviſed for the Prevention of Riots: the reading of the Riot-Act, he obſerves, has too often

proved

proved wholly ineffectual; the endeavour to inculcate the idea that every citizen is in times of tumult a Peace-Officer, however wiſe and ſalutary, he conſiders to be fruitleſs and inadequate; the practice of calling out the military he deplores, as employing one deſcription of citizens to ſhed the blood of another, and too often involving the innocent and the guilty in the ſame puniſhment; and as for the ſtatute for levying the damages done in Riots, upon the Hundred in which they happen, he views it as only calculated to make the miſchief fall lighter after it is done, and operating little to prevent the perpetration of it.

Our Eſſayiſt next advances an opinion that Tumults have been much more frequent of late all over Europe than they uſed to be in former times; this increaſed frequency he attributes principally to the inferiority of the preſent condition of the poor compared with the condition of the poor of thoſe times, coupled with a comparative increaſe of population and a farther increaſe perhaps of knowledge in the poor of the preſent day, communicated either mediately or immediately by the preſs: and in regard to the two firſt-aſſigned cauſes, though he admits that the various charitable inſtitutions, the extenſion of trade and commerce and the improvements in agriculture, have in late times much facilitated to the poor the means of

obtaining the neceſſaries of life, yet he contends that the increaſe of population has more than counterbalanced theſe advantages, and that they who are really poor, are, notwithſtanding ſuch advantages, left exactly where they were before, or perhaps even in a worſe condition: "For though the advancement of commerce, ſays he, may without doubt have "cauſed that a greater number of individuals are in eaſy "circumſtances now than formerly, yet it is certainly not "true, he adds, that the whole gradation from the higheſt to "the loweſt claſſes of ſociety has uniformly and equally de-"rived a benefit from it; ſo far otherwiſe indeed, that the "real poor are thereby made relatively poorer; for though "that benefit may perhaps have extended through all the "other ſteps down the ſcale, yet juſt before you come to the "laſt of all there is a moſt fearful gulph, the diſtance between "tolerable deprivation of comforts and extreme poverty (which "ſtill exiſts notwithſtanding the advantages before-mentioned) "being in truth infinite."

In regard to the third cauſe which our Author has aſſigned for the modern frequency of Tumults, he obſerves that if it be true that the population of Europe has comparatively encreaſed, it is alſo true that that increaſe is attended with another remarkable circumſtance, namely, that ſuch population is condenſed

condenſed more than formerly in trading and manufacturing towns, where the poor, by near and conſtant intercourſe with each other, acquire a ſort of knowledge which leads them to a compariſon of their own wretchedneſs with the eaſe and plenty of their ſuperiors, the conſequence of which is a ſpirit of diſcontent, ending in a ſpirit of turbulence and miſchief. " For " it is too natural, he remarks, that ſeeing every moment " around them hundreds of their fellow-creatures, whoſe lot " has been much benefited by all the concurring cauſes which " have improved the ſtate of ſociety, while their own indigence " is ſtill unalterably the ſame, they ſhould on making ſuch " compariſons one among another (as they muſt be apt to " do when they are aſſembled at their daily labours) feel a " ſtronger diſpoſition to diſorder and tumult than the poor " did before thoſe cauſes operated, and that the frequency of " riots, all founded perhaps in a portion of the levelling ſpirit, " ſhould encreaſe accordingly."

After premiſing ſo much and aſſuming that poverty is the ultimate ſource and only ſupport of the inclination to riot, he lays down his main poſition, " that, in order to ſecure peace " among crouds, it is neceſſary to enliſt the intereſts of thoſe " who

" who compoſe them, on the ſide of peace." To the objector who may cite Horace perhaps

> Non furtum feci neque fugi, ſi mihi dicat
> Servus; " habes pretium, loris non uteris," aio,

and inſinuates that every man like Horace's ſlave is already intereſted not to diſturb the public peace; he anſwers, that experience has too fatally ſhewn that that negative ſort of intereſt is alike inſufficient for the prevention of rioting, as it is found to be for the prevention of other crimes. He then enquires whether ſuch an intereſt as might be excited by rewards, would be adequate to the attainment of the object deſired, and whether it might not be poſſible to inſtitute a certain order of perſons in the nature of Conſtables, whoſe duty it might be to mix themſelves with the populace for the purpoſe of preventing their proceeding to miſchief, when aſſembled in crouds: he goes into ſome length to ſhew the inadequacy of ſuch an inſtitution, from the danger which ſuch perſons might incur from the rioters; from the impoſſibility of apportioning the rewards properly, (as nobody could pronounce upon the quantity of miſchief which might have ariſen from a riot, but which was in fact prevented by the interference of ſuch perſons;) and laſtly, from the frauds which would probably be practiſed

practiſed upon ſuch an inſtitution by a collusive aſſembling of crouds, in order merely to found a claim to ſuch rewards: but we think it unneceſſary to follow our Author farther on that topic.

He next proceeds to recommend the eſtabliſhing of a poſitive pecuniary intereſt in favor of the poorer claſſes of ſociety (who are alone likely to compoſe the maſs of crouds and to make riots) in addition to the negative intereſt which they have at preſent by not incurring penalties if they duly keep the peace, and at length, with a view to that poſitive intereſt, propoſes the following plan: "That in every pariſh in the kingdom there "be inſtituted under the authority and ſecurity of Parliament, "an office for the reception of any ſums however ſmall, but "never more than one hundred pounds from any individual, "which ſums the poorer claſſes, labourers and manufacturers, "might be willing to depoſit there, in the pariſhes where they "uſually reſide; that ſuch ſums ſhould carry an intereſt, "which ſhould vary inverſely, according to the amount of "the ſums depoſited, from 20 to not leſs than 10 per cent. "free from all deductions whatſoever; the principal and in-"tereſt to be transferable at pleaſure and both liable to be "forfeited by the holders, in caſe of any riot taking place in "their reſpective pariſhes, unleſs they ſhall be prepared with

" proof of their having been abſent at the time or of their
" having done the utmoſt in their power to prevent or put a
" ſtop to ſuch riot; the fund from which this intereſt ſhould
" be paid and the expences of managing it, to be provided in
" the firſt inſtance by Parliament, but that, within a conveni-
" ent time after the plan ſhould be eſtabliſhed, the poor-rates
" ſhould go in aid of ſuch fund: the intereſt might vary in an
" inverſe proportion to the weekly ſums which it might be
" imagined poſſible for a poor man to put by; ſuppoſe then
" he were to put by but a ſingle ſhilling a week from his
" preſent earnings; the ſhillings ſo ſaved would at the end of
" the year amount to 2l. 12s. and for the firſt 2l. 12s. he
" might, by way of encouragement, be allowed 20 per cent.

| | £. s. d. | £. s. d. | |
|---|---|---|---|
| " For the firſt - - - - - | | 2 12 0 | 20 per cent. |
| " For the next 3 times | 2 12 0 | or 7 16 0 | 18 —— |
| " For the four next | —— | or 10 8 0 | 16 —— |
| " For the five next | —— | or 13 0 0 | 14 —— |
| " For the ſix next | —— | or 15 12 0 | 12 —— |
| " And for the reminder of the 100l. - - | | or 50 12 0 | 10 per cent; |

" Though

" though the ſcale of intereſt above, which is ſuggeſted " merely for example' ſake, might be eaſily changed for any " other better approved.

" Now in order to judge of the inſtitution here propoſed, " it may be neceſſary to conſider the relative condition of the " two claſſes of mankind, the rich and the poor; and in ſo " doing it may be obſerved that the difference between them " ariſes not more from the former having money and the latter " having none, than from the circumſtance of the former being " able to make a uſe or intereſt of the money they have, or, in " more technical language, from their having, little or great, " a productive capital: money, it has been often remarked, " gets money; and nothing is more common than to hear " opulent perſons ſay that the only difficulty they have known " in life was to acquire their firſt hundred pounds, and by the " plan ſuggeſted, I would endeavour to diminiſh that difficulty " tenfold, by opening a fund for the general and ſecure depoſit " of money, which fund, by the ſuperior intereſt it ſhould " give on the ſmall ſums of the poor, might render all ſmooth " and eaſy to them after the acquiſition of the firſt ten " pounds."

Our

Our Eſſayiſt then goes into ſome little developement of his laſt idea, in the courſe of which he remarks that the increaſe of the number of perſons who are in theſe times at eaſe in point of circumſtances, may be attributed in part to the gradual decreaſe, for this laſt century, in the value of money: "For (ſays he) as a hundred pounds has uſually been the in-"tegral ſum which has been conſidered as yielding an intereſt "worth regarding, the hundred pounds being now lower in "value, ſums of money, nominally great, have come into the "hands of deſcriptions of perſons formerly unuſed to be maſ-"ters of ſo much, who having thereby, in greater numbers, "a capital, have employed it productively, either at common "intereſt in the funds, or at an advance of intereſt by trade: "and, as the greater the number of perſons be who have "money, the more eaſily will money be procured by others; "ſo the more eaſily money is procured, the greater will be "the number of enterprizes in trade, of which eaſe of cir-"cumſtances and wealth will be the natural conſequences.

"But (continues he) beſides the advantage which every "man, who poſſeſſes a certain ſum of money, has of embark-"ing that money in trade, and ſo making ten, or perhaps "twenty per cent. by it, he has this farther advantage, that if "in ſo employing it he fails of ſucceſs, the Bankrupt-Laws

"will

" will diſcharge him from his debts altogether; but no ſuch " beneficent law exiſts to diſcharge the labourer or manu- " facturer from the little debts, which they may have been " compelled to contract, to obtain perhaps the common neceſ- " ſaries of life: far from having the benefit of any ſuch law, " the poor ſtill ſubſiſt upon wages, which have by no means been " encreaſed in a due proportion with the decreaſe of the value " of money, and are often too rendered poorer by the obliga- " tion of paying a weekly ſomething out of thoſe wages to a " mercileſs ſhop-creditor: to alleviate this diſtreſs nothing " more perhaps is wanting, but that the law ſhould be made " equal for the poor and for the rich; or in other words, that they " like the rich, ſhould have an intereſt payable, by ſome ſuch " plan as the one propoſed above, on the ſcanty pittances their " frugality might ſave, and that (in lieu of the benefit of bank- " ruptcy) ſuch intereſt ſhould be ſo ſecure and of ſuch an " amount, as might encourage them to ſave their earnings: " they would by thoſe ſimple means, I apprehend, ſoon re- " move their own diſtreſs, without any other help than their " own exertions."

But how can the poor, whoſe wages are already inſufficient for their ſubſiſtence, put by any part of thoſe wages? " Then " raiſe their wages, (ſays our Author) though, even if you

" ſhould not do ſo, they will ſpare a ſomething out of their
" preſent little; from their own meals and from their chil-
" drens' will they ſpare it, if they may have but the gradual
" hope of being at ſome time freed from their preſent hard
" condition: and, beſides that a habit of privation has a be-
" neficial influence upon morals, it may be fairly preſumed
" that by ſuch a habit, coupled with an ordinary ſhare of
" induſtry, many a man who has now nothing, might, by the
" operation of the plan propoſed, be able in a few years to
" throw into the fund the full ſum at which it is limited,
" a hundred pounds: for let but a poor man underſtand, that
" if he puts by a ſhilling a week this year, he ſhall receive
" next year, by quarterly payments, for the ſum ſo put by,
" ten ſhillings in intereſt for it, and what man in health and
" capable of labor would not exert himſelf to do it? And
" though it were to require the induſtry of a whole life almoſt
" to ſave the hundred pounds, yet ſtill as a poor man ſhould
" grow older and need it more, the more would he have in
" intereſt on the growing ſum to add to the diminiſhed earn-
" ings of his labor; and the hundred pounds bequeathed
" afterwards in portions to his children would be to them the
" means of gradual advancement by the ſame mode: let not
" then the poor man be grudged the equal benefit propoſed
" for him; if the tradeſman is not envied a profit, upon thou-

" ſands,

" ſands, of from 10 to 20 per cent. with [the advantage of a
" Commiſſion of Bankruptcy in caſe of failure of ſucceſs;
" who will ſcruple to allow a variable intereſt from 20 to 10
" per cent. upon a ſingle hundred pounds ſcraped together by
" the poor man, whoſe labor it is, after all, which enables
" that tradeſman to ſupply his employer's luxuries?"

After making theſe obſervations upon the comparative conditions of the rich and poor, our Author enlarges upon the general ſatisfaction and happineſs, which could ſcarcely fail, as he apprehends, to reſult from the Plan which he propoſes: " For what (he aſks) could more ſtrongly reconcile the poor " to their ſituations, than the reflection that they ſhould be " permitted by law to make a larger intereſt from their little " earnings, than is allowed to their ſuperiors upon their greater " ſtores? What could better diſpoſe them towards the rich, " than the circumſtance of the rich, by whom they are go- " verned, paſſing a law ſo beneficial to them? If then by ſuch " means they ſhould feel a gradual hope of emerging at ſome " time into comfort from their preſent ſtate of diſtreſs, the " dawn of ſuch a hope would give riſe to a general con- " tentment among them, and all tendency to riot and diſturb- " ance would probably diminiſh in a juſt proportion with the " progreſs of ſuch a hope: for if riots originate in that diſ-

" content and turbulence of ſpirit, which may be conſidered
" as the common attendants of poverty under it's preſent cir-
" cumſtances, the beſt means of preventing them muſt be to
" improve thoſe circumſtances: and what motives more pow-
" erful, to induce content and conſequent peacefulneſs, can be
" called into action, than thoſe which the Plan propoſed would
" be the means of exciting, Self-intereſt for the acquiſition of
" benefits, by orderly conduct; and apprehenſion of evil, in
" the loſs of thoſe benefits when acquired, by a contrary con-
" duct? if too, with a view of adding to the effect of the latter
" motive, perſons after once incurring a forfeiture by rioting,
" ſhould be diſqualified from inveſting their money in future
" in the ſame pariſh, it might operate as a ſort of diſgraceful
" exile from their homes and connections, and tend ſtill more
" perhaps to the attainment of the object propoſed."

But ſuch an inſtitution would lead to the encouragement of combinations for the purpoſe of raiſing wages, in order the ſooner to obtain money which might carry the advance of intereſt intended—" Then (ſays our Author) let there be a con-
" dition annexed to the plan, that a forfeiture of the ſtock
" ſhall enſue on ſuch combinations, as being themſelves the
" frequent cauſes of riots." But it would be attended with infinite trouble and expenſe—" And are there not (he aſks)

" Overſeers

" Overſeers of the Poor at preſent in every pariſh, whoſe duties " impoſe on them a conſiderable trouble, which duties howe- " ver might be eaſily new-modelled to the purpoſe intended? " Are there not Clergymen in every pariſh, who would think " little of the trouble of ſuperintending an inſtitution founded " in benevolent views? And are there not likewiſe Country " Gentlemen or Magiſtrates in every pariſh, who would have " an intereſt as well as a pleaſure, in countenancing a Plan, " the obvious tendency of which, however expenſive at firſt, " would be to diminiſh the poor-rates, and gradually do away " perhaps the neceſſity of having any poor-rates at all?"

But the frauds practiſed upon the inſtitution would be innumerable—" They might in truth (admits our Author) be " many and various; and perſons of a ſomewhat better claſs, " not the proper objects of it, might ſeek by indirect means " to derive a benefit from it: but every public inſtitution is " in like manner expoſed to abuſes; the preſent poor-laws are " themſelves over-run with them: in this reſpect therefore the " Plan would ſtand upon the ſame footing with every other: " yet like others too, it might be guarded with checks and " preventatives—the common ſenſe of ſhame would certainly " in ſome degree operate to reſtrain thoſe of a better condi- " tion from invading a fund deſtined for the relief of the poor:

" three or four pledges, themſelves ſtock-holders, might be re-
" quired, to prove, upon their belief, that the money depoſited is
" the property of the perſon inveſting it: the oath of the party
" himſelf, though it is not well to multiply oaths, might per-
" haps be neceſſary: liſts of all the ſtock-holders might be
" fixed in public ſituations for the general inſpection of every
" pariſh: the poor themſelves would be jealous of an inſtitu-
" tion intended for their benefit and would watch over each
" other; and if an idea ſhould prevail that a perſon was re-
" ceiving intereſt from the fund for money not his own, a
" mode might poſſibly be deviſed applicable to ſuch caſes, of
" determining by a jury of ſtock-holders, whether the money
" belonged to the party or not, and if not, then that it be
" withdrawn from the fund and the perſon ſo depoſiting the
" money of another be diſqualified from inveſting any more in
" it: and as for thoſe who are really rich, (for as the Scheme
" is limited to one hundred pounds for each individual,
" thoſe, who can be conſidered as likely to attempt frauds
" upon it, are only perſons of a condition between the rich
" and the poor, and not the rich themſelves) beſides the duty
" which would devolve upon them from their ſtation, to be
" watchful againſt the commiſſion of frauds upon ſuch an in-
" ſtitution by others, which duty an honorable pride would
" itſelf lead many punctually to diſcharge; it might be expe-

" dient

" dient perhaps that they ſhould alſo have a poſitive intereſt " ariſing from the diſcharge of ſuch a duty, by providing that " a part of the money which ſhould be applied by Parliament " to the diſcharge of the intereſt payable by the fund, ſhould " be aſſeſſed upon each pariſh individually and conſequently " upon their property; which, from the gradual decreaſe " which it is preſumed would ſoon take place in the poor- " rates, might not unreaſonably be done—ſuch means, or " others, doubtleſs, more effectual, might be adopted, with a " view to check the incurſions of fraud; if the Scheme itſelf " ſhould be found, on examination, calculated to promote pub- " lic happineſs and not inconſiſtent with the rules of public " policy."——

(TO BE CONTINUED)

ARTICLE

## ARTICLE VII.

### A CONSTRUCTION OF A SINGLE-WHEEL CHAISE.

THE famous Sir William Petty in the intereſting account of his life which he has inſerted in his will, intimates that he was in the habit of employing himſelf in the ſtudy of the mechaniſm of wheel-carriages and ſhips, as being the objects moſt ſerviceable to the common and daily purpoſes of mankind: the Gentleman whoſe project we now review, whatever predilection he may have for the ſame objects, muſt undoubtedly be of a very different ſchool from Sir William; for to what common or uſeful purpoſe he means to apply his Single-Wheel Chaiſe, it is not in our power to conjecture: whether he imagines he ſhall be able to travel in it with more facility in hilly and broken roads, or propoſes it only as an addition to the

the phaeton, curricle and other carriages conſtructed merely for amuſement, he does not tell us: if he means to travel in it, we wiſh his journies may be ſafe and pleaſant with all our hearts; but, though he ſhould intend only to exhibit it in a Sunday's airing, we would recommend him not to go far from Hyde-Park Corner, in order that he may have the aſſiſtance, which we are ſure he muſt ſoon need, from St. George's Hoſpital:—but let us give the Gentleman's own deſcription of his Plan.

" A converſation turning ſome years ago upon the different " ſorts of wheel-carriages, one of the company obſerved that " he wondered no attempt had been made to conſtruct a car- " riage that ſhould go ſafely upon only one wheel: another " remarked that ſuch an attempt had often been made, but " without ſucceſs; and a third confirmed his remark by adding, " that a Gentleman who had recently attempted it had given " up the purſuit, declaring that he ſhould never be able to " accompliſh it, unleſs he could contrive, ſomehow or other " to paſs a bolt through the ſhaft-horſe's body: when the com- " pany ſeparated, I could not divert my mind from reflecting " on this practical problem, and after conſidering it in various " ſhapes, it ſeemed to me that it might poſſibly be ſolved as " follows,

" follows, a little leſs painfully to the poor horſe, by putting " the bolt under his body only, inſtead of through it.

" A, a, is a perch compoſed of two pieces between which the " wheel has it's motion; (Vid. Fig. 1, Pl. 3; and Fig. 2 in the ſame " Plate alſo, in which c, the horſe's collar is exhibited in front " and on a larger ſcale) b, is the ſhaft; c, the horſe's collar; " along the bottom of which for nearly the whole of the " breadth of the cheſt is placed d, a curved iron rod; along " which runs freely e, a ring, forming one link of f, a chain; " which is fixed to one end of g, a ſhort ſtrong round piece of " wood; which paſſing between the fore-legs of the horſe, has " at it's other end h, h, two other chains, made to be faſtened " by pins or ſtraps, one on each ſide of the ſhaft: k, is a " broad belt for the horſe's waiſt; l, the ſupport of the foot- " board, having a correſponding ſupport on the other ſide of " the wheel; o, is the foot-board; p, the driver's ſeat, ſup- " ported by q, a ſpring, aſſiſted by another ſpring on the other " ſide of the wheel; and r, is an upright which ſupports the " ſpring and is fixed to s, the block in which is the axis on " which the wheel turns.

" Now when the broad belt (k) which would itſelf in ſome " degree prevent the wheel from being overturned, ſhould no

" longer

" longer prove ſufficient for that purpoſe, the wooden " bolt (g) would come into uſe, which would not occa- " ſion the leaſt obſtruction whatever to the motion of the " horſe, as never touching him but for an inſtant in caſe of a " ſtrong inclination of the wheel; in which caſe, preſſing " againſt the inſide of the fore-leg under the cheſt, where the " horſe has great ſtrength and power, it would throw the " center of gravity of the wheel into its proper place and " bring the whole upright again immediately. The bolt " ſhould be covered with leather to prevent galling; for bet- " ter avoiding which it might be hollowed too and have an " iron pin through it over which it might roll; the common " falſe-collar alſo might for this purpoſe be continued between " the fore-legs of the horſe quite up to the waiſt-band and ſo " form a farther ſafeguard."

—Well, Sir! Your Chaiſe is built and you are mounted; we once more wiſh you a ſafe and pleaſant drive: we Reviewers, at leaſt thoſe of our Society, uſually walk on foot; and as you have room but for one perſon and cannot offer us a ſeat, be aſſured we thank you as much as if you did.

ARTICLE

## ARTICLE VIII.

### LUSUS POETICI.

A Member of our Society happened to call one morning ſome time ago upon a young Gentleman of Lincoln's-Inn who had then newly come from the Univerſity: he found him ſurrounded with a confuſed heap of books and papers, among the former of which he obſerved that Coke upon Littleton and ſome volumes of Reports and of the Statutes at large lay open upon the table: if this ſatisfied him that his young friend was fully determined to proſecute his ſtudies with ardour, he was farther convinced of it when he learned that the papers which lay ſcattered around him, were no other than a collection of his Academical Exerciſes, Declamations, Verſes, &c. which he was actually employed in burning by way of bidding farewell

well to the Muſes, juſt at the moment when his viſitor rapped at the door.

A curioſity very natural induced the latter, who by no means wiſhed to be at ſuch variance with the Muſes, to requeſt his friend to beſtow the Exerciſes upon him inſtead of throwing them into the fire: the Student, after exacting a promiſe that they ſhould never make a part of their converſation ſo as to prevent their mooting points of law together whenever they met, with much difficulty conſented; and as our colleague has ſince confeſſed to us, that a chief part of his object at the time of begging them was, that we might be enabled to inſert ſome of them here, with an eye to that variety which all Reviewers ſhould endeavour to attain, we accordingly preſent the Reader with two ſhort pieces: but having obtained them in the manner we have ſtated, we ſhould betray a want of feeling, if not of generoſity, if we were to criticize them with as much ſeverity as they may be thought to deſerve.

O Fortunatus nimium!——

Nympha pudica, meam ſub amæno colle jacentem
Mecum quære caſam; Chloris amata, veni.
Non amplæve fores, fateor, pulchræve columnæ,
Simplex munditiis ſtat, ſed, et apta, domus.

Accedunt fundusque ferax hortusque, corollas
Ex quibus et messes Flora Ceresque ferent.
Quid plura enumerem? propè, me, me semper habebis
Fidum, et quæ tibi sit cura, erit ipsa mihi.
Olim et fortè dabunt natos dii, pignora amoris;
Te, nisi quod dulce est nil, mihi crede, manet.
—Annuis, arrides, ah jam pulcherrima! dextram
Jungere vis dextræ nunc et adire domum:
O jucunda dies! tandem carissima Chloris
Annuit, inque vicem flagrat amore sinus:
Amplius haud oculi fastidia frigida jactant;
Blanditiæ invitant; risus in ore nitet.
Ferte igitur, nymphæ, flores et dulcia Veris,
Sacraque felici digna parate Deo;
Immiscete rosis myrtos, et Templum Hymenæum
Sic quasi conjugio serta ligata tegant;
Ante fores, vitis viridanti pendeat ulmo,
Reptantisque hederæ vincta sit ara comis.
Tædia longa moræ cessant—age, connubiales
Ritè parate faces, carmina, thura, torum.

INSCRIP-

## INSCRIPTION FOR A STATUE OF HYGEIA,

PLACED OVER THE DOOR OF AN HOSPITAL.

Intrare, tutus me duce Hygeiâ,
Sanctas in ~~edes~~ ædes ne metuas—licet
Immensa morborum caterva
In camerâ glomeratur omni,

Adsum, salutis mater, et artifex
Amica vitæ: cum tenerum fero
Solamen ægrotis, dolores
Effugiunt, lacrymæque cessant.

En, quò laborans febre, gemit puer
Inter parentes exanimes metu,
Passosque conclamans capillos
Dilacerat niveumque collum,

Furore diro percitus! At furor
Non longus inflat; jam calicem puer
Exhaurit, atque imos recessus
Mox penetrans petit Herba morbi,

Datura vires: protinus, aſpice,
Et labra pulcras et veteres roſæ
Genas reviſunt, priſtinuſque
Fulgor adeſt oculis coruſcans:

Sic pené aduſtus floſculus, aſpero
Fervore quem Sol ſeminecem diu
Oppreſſit, auram dulciorem
Poſt pluvias redivivus halat,

Rurſùm et colores exhibet. Haud enim
Fornace fruſtrà Chemicus igneâ
Occulta naturæ recluſit,
Reſque ſinu varias recondit

Quas alma tellus, protulit; irritos
Solerte inurit nec Medicus manu
Jamjam laboranti dolores;
" Ducit opes animumque ferro:"

Artemque ab oris tranſtulit Indicis
Wortleya,* cujus vi ſpeciem novâ
Venuſta conſervat puella,
Jamque dolet leviore morbo,

Ultrò lacertis ſaucia; dum, notâ
Fædante nullâ, purpureus decor
Reſplendet, et formæ ſereno
Suavis honos manet ore rideno.

* The art of Inoculation is ſaid to have been brought from India by the Armenian Merchants, and firſt introduced into England by Lady M. Wortley Mountagu.

ARTICLE

## ARTICLE IX.

### A METHOD OF PRINTING.

WHEN one conſiders that every letter uſed in making up the words contained in a book has once exiſted in a ſeparate type, and that it is by the laborious compoſition of thoſe ſeparate letters into ſyllables, words and ſentences that the book is framed, one may reaſonably wonder that the operation of Printing is conducted with ſo much diſpatch as we know it to be: yet notwithſtanding it is already performed with an expedition really amazing, it is poſſible perhaps that it may ſtill be capable of farther acceleration: that indeed has very lately been in a great degree effected by the Logographic method of Printing, and the following Scheme has for it's object to advance one ſtep nearer to the ſame end: we ſhall firſt ſubmit it

it to the Reader in an extract from the Projector's own deſcription of it, and then offer a few obſervations upon it ourſelves.

" ——In ſhort I would propoſe that the printing-type " ſhould be altogether laid aſide, and the graver ſubſtituted " inſtead of it; that books ſhould be engraved (on copper, " pewter, wood, marble, or other proper material,) directly as " they are now uſually written with a pen on paper, which " might be done with nearly as much diſpatch as they could " be ſo penned; and that when printed off afterwards from " the plates in an inverted ſtate, they ſhould, by the uſe of " a mirror, of a convenient ſize for the reading-table or the " pocket, be reflected to the eye again in a direct and legible " ſtate. But though a mirror would be all that would " be wanting to the perſon who reads, yet for him who " would print, ſome time and attention would be ne- " ceſſary in order to his learning to engrave with pro- " per ſkill and diſpatch; and it may be expedient there- " fore to conſtruct for his uſe ſome ſimple inſtrument " which may at once accelerate, and facilitate his la- " bour: till a better were deviſed, the following (of which " a Sketch

" a Sketch is given in Fig. 8, Pl. 1.) might ſerve the " purpoſe.

" Let the axis of a little wheel, d, (to which a rapid rota- " tory motion is given by means of a lathe f, g, k, to be " worked by the foot like a turner's lathe) be a rod of ſteel " of the thickneſs of a ſmall black-lead pencil, which at the " diſtance from it marked in the figure may diminiſh in dia- " meter and there be faſhioned into a ſpiral (b) in the manner " of a houſe-bell ſpring or an elaſtic hatband, which ſpiral " ſhould terminate in the ſtyle or graver (a) of the ſame " thickneſs as the wheel's axis, and having either one grooved " or cutting point, or two points like thoſe of a pair of ſciſſars, " which indeed is itſelf an inſtrument very applicable to the " purpoſe, of which any one may eaſily make trial: h, is a " block from which projects c, a thin wooden plate, through " a ſmall hole in the center of which the iron rod paſſes and in " order to it's being kept in it's proper poſition, has a little " ſtud or ridge on each ſide of it, as expreſſed in the figure; " and e, is another block, containing a pivot hole, in which " the end of the rod works. The ſtyle or graver ſhould be " incloſed in a cylindrical ſteel caſe, by which caſe the hand " is to take hold of it; and as the whole of the apparatus,

" except

" except the caſe of the ſtyle, would have the ſame rotatory
" movement as the axis of the little wheel, of which axis it
" is a continued part; the flexible nature of the ſpiral would
" give a free ſcope to the hand of the engraver, and leave him
" at liberty to move the ſtyle upwards or downwards, and to
" ſhorten or lengthen it: the ſtyle too partaking of the rapid
" motion, through the caſe which is graſped in the hand,
" would have a conſiderable force from that motion, either
" to grind, cut or corrode the copper or other material which
" the engraver uſes: the caſe of the ſtyle is merely for the
" purpoſe of giving that free motion, unobſtructed by the
" hand; but there ſhould be a ridge to the ſtyle, at about the
" ſame diſtance from it's point as a pencil is uſually cut, to
" prevent the caſe from deſcending ſo low as to be in the
" way; and as it is obvious that it ſhould be uſed as nearly as
" poſſible in a line with the axis of the wheel, the wheel ſhould
" for that purpoſe be fixed ſomewhat above as well as behind
" the perſon uſing it, by which means the ſtyle might be
" managed exactly in the manner of a pencil, and the preſſure
" upon it being encreaſed or diminiſhed by the hand, a
" bolder or finer ſtroke would in like manner be the reſult.

" If

" If after a plate has been thus engraved, the impreſſions of " it are thrown off upon tranſparent gauze, ſilk or oiled paper " (or upon common paper if a ſtrong light be caſt behind it) " it will not be neceſſary to reſort to a reflector, as the in- " verted ſide of the gauze, ſilk or paper will exhibit the let- " ters in due manner to the eye; but if the reflector is re- " ſorted to and common paper uſed as in the ordinary way, " it may be proper to ſelect ſofter or harder materials to " engrave upon, ſome ſpecies of wood or ſtone, pewter, block- " tin or copper, as the engraver is more or leſs deſirous of " diſpatching his book with expedition. The lines in the " oppoſite page exhibit a ſpecimen of this method of Print- " ing."——

The

Vi siano esempio e scorta e lume e specchio.
Michelang: Buonarroti.

I.

Cease, cease, dear Chloe, over the Glass
Thus on your lovely charms to gaze;
Tho' when it tells you they surpass
Dim Helen's; 'tis but honest praise:

II.

For me, the Mind must aid the Face —
If then you'd rivet fast my Chains,
Let both in excellence keep pace:
Thus bound, I'm yours, whilst life remains.

III.

Right used, that Mirror's magic Art
Might well both requisites dispense;
When on your Toilet, Grace impart,
And, in the Study, solid Sense.

IV.

Sure then, by using thus your Glass,
In Talents as in Form to shine;
With it, henceforth, alternate pass
From Venus' to Minerva's Shrine.

---

The obſervations which we would make upon the foregoing Plan are theſe; that if in truth no unforeſeen obſtacle ſhould prevent it's being reducible to practice, the art of Printing would in fact be likely to be conducted by it with more diſpatch and the expenſe of that art to be diminiſhed: and as every man who could write would alſo be able to print, ſo books already printed, being newly edited after this mode at a much cheaper rate, the information conveyed by them would be more extenſively diffuſed. Public articles of intelligence or alarm, circular letters, general orders and things of a like nature might be printed in as ſhort a time nearly as they could be penned; while every body might have the reading-mirror for his ordinary uſe of ſuch a magnifying power as he choſe and thereby receive aſſiſtance of that ſort much more conveniently than by ſpectacles or hand-glaſſes of refraction. The penman's letter too is infinitely more beautiful than the common type, and one great advantage farther might poſſibly ariſe from this mode of Printing, as it might tend to regulate and fix the art of penmanſhip itſelf: to trace out the hand-writing of remote times is now become an object of a ſeparate ſcience: to underſtand that of foreigners and even of our own friends is ſometimes difficult; and the reaſon of it is that there is no one ſtandard to which it has been agreed to conform; but as it has been obſerved by a learned Gentleman who has recently

obliged the public with a hiſtory of our own country that the European languages were in a great meaſure fixed by the original art of Printing and have changed little comparatively ever ſince; ſo a general ſteadineſs and permanent uniformity might poſſibly be produced in the art of penmanſhip by the adoption of this method of Printing, as every body would probably be deſirous of following as nearly as poſſible the ſame model. It may be added too that children, inſtead of learning two arts as they have now to do, by firſt acquainting themſelves with the printed type and then the penman's writing, would have their early labours ſimplified by having only the latter to acquire; and their learning to write afterwards themſelves, would be more eaſily accompliſhed from their having ſolely to imitate letters, with which they had already been familiarized in reading.—But theſe remarks have led us to a greater length than we had intended; it is time that we cloſe them and paſs to another Article.

ARTICLE

## ARTICLE X.

### A METHOD OF ROWING.

IF in the laſt Article we exhibited to the Reader the art of Printing, inverted; we are in this to do nothing leſs than the ſame thing by the art of Rowing: the Treatiſe which we have now to review is divided into two parts; one theoretical, the other practical: in the firſt the Author attempts to demonſtrate that an oar is not, as it is commonly ſuppoſed to be, a lever of the ſecond order in which the weight lies between the center of motion and the power, but that it is in fact one of the firſt order wherein the center of motion is between the weight and the power, or in other words, that the center of motion of an oar is not at the end of it's blade, but at the ſide of the boat on which it reſts. We ſhall ſpare the Reader

however the trouble of peruſing any obſervations of our's on this theory, ſince the experiment of a moment might be ſufficient perhaps to prove the whole to be founded in error; and as to what concerns the other part of the Treatiſe we ſhall be as conciſe as poſſible, becauſe the ſubject of it is one of that ſort, in which the aſſiſtance of the eye is neceſſary to enable one to form a right judgement of the effects, likely to reſult from the uſe of the new apparatus recommended in it.

" If this be true, ſays the Author, (namely, that the center of motion of the oar is at the point where it reſts on the boat) the boatman muſt pull at it, in the uſual way, under " a prodigious diſadvantage in reſpect of mechanical power, " as the arm of the lever at which his ſtrength, as one weight, " is applied, is not more than a fourth or fifth part of the " length of the other arm, againſt which the reſiſtance of the " water, the other weight is preſſed; and it might poſſibly be " an uſeful experiment to invert the mode of applying the " boatman's ſtrength, ſo that, while the handle of the oar " ſhould be uſed for little elſe than to guide it, the power " ſhould be applied at the end of the blade and no longer at " the handle: this might be tried in a very ſimple manner; " give a boatman a pair of ſcullers, with directions not to pull " at them, but merely to guide them in their proper poſition,

" in

" in and out of the water; let the ſcullers have each of them " a ſmall rope faſtened to the ends of their blades, and let " another man, ſtanding at the ſtern of the boat facing the " boatman, employ his ſtrength in drawing the ropes towards " him at each ſucceſſive ſtroke of the ſcullers. If the expected " reſult ſhould follow, namely, that the boat ſhould yield to " the reſiſtance made by the water againſt the paſſing of the " ſcullers through it, and go forward as by the uſual mode of " rowing; it might be eaſy to put a wheel and axle in the " place of the man at the ſtern, which when worked by a " winch, might ſet any number of oars (connected together " by ſmall ropes at their ends, at equal diſtances from each " other) all at once in motion; as in Fig. 3. Pl. 3, where " a, a, is the ſide of a boat; b, a fixed pulley; c, another " fixed pulley projecting from the boat, in order that the " draught may be as nearly as poſſible in a ſtrait line; d, e, " &c. any number of oars faſtened together at equal diſtances " by the cords f, g, &c.; and k, k, is a wheel and axle, to be " turned by the winch, l.

" If again the adoption of the wheel ſhould ſucceed, one " ſtep farther towards a completion of this ſyſtem of rowing " might be made perhaps by the following apparatus: at the

" ſtern of the boat (Vid. Figs. 4 and 5, Pl. 3.) let a bar be
" projected horizontally from the top of it, at a right angle
" with the boat's ſide and extending over the water to the
" ſame diſtance as the end of the oar: let this bar (of which
" a ſketch is given on a more enlarged ſcale in Fig. 6, Pl. 3.)
" at it's end within the boat have a free play upwards, round
" a pivot (a) ſo that it may be capable of being drawn up at
" pleaſure perpendicularly; at the ſame end of the bar there
" ſhould be a fixed pulley (b) round which is to move a
" rope coming from a wheel which will be mentioned again
" preſently: at the other end of the bar let there be another
" fixed pulley (c) round which alſo moves the rope, which is
" then faſtened (by means of a ring of iron (d, d) freely moving
" upon a ſmall pin with a nut or head to keep it on) to the
" end of the blade of the oar and proceeds from thence to a
" pulley (e) fixed at the end of an oppoſite, correſponding and
" ſimilar bar placed at the head of the boat, along and parallel
" to which bar the rope is to move till it meets another pulley
" (f) fixed at the other end of this laſt bar lying within the
" boat, from which it proceeds again to a wheel (g) placed
" towards the ſtern of the boat, and after having paſſed round
" this wheel, it is ſpliced to the other end of the ſame
" rope.

" A like

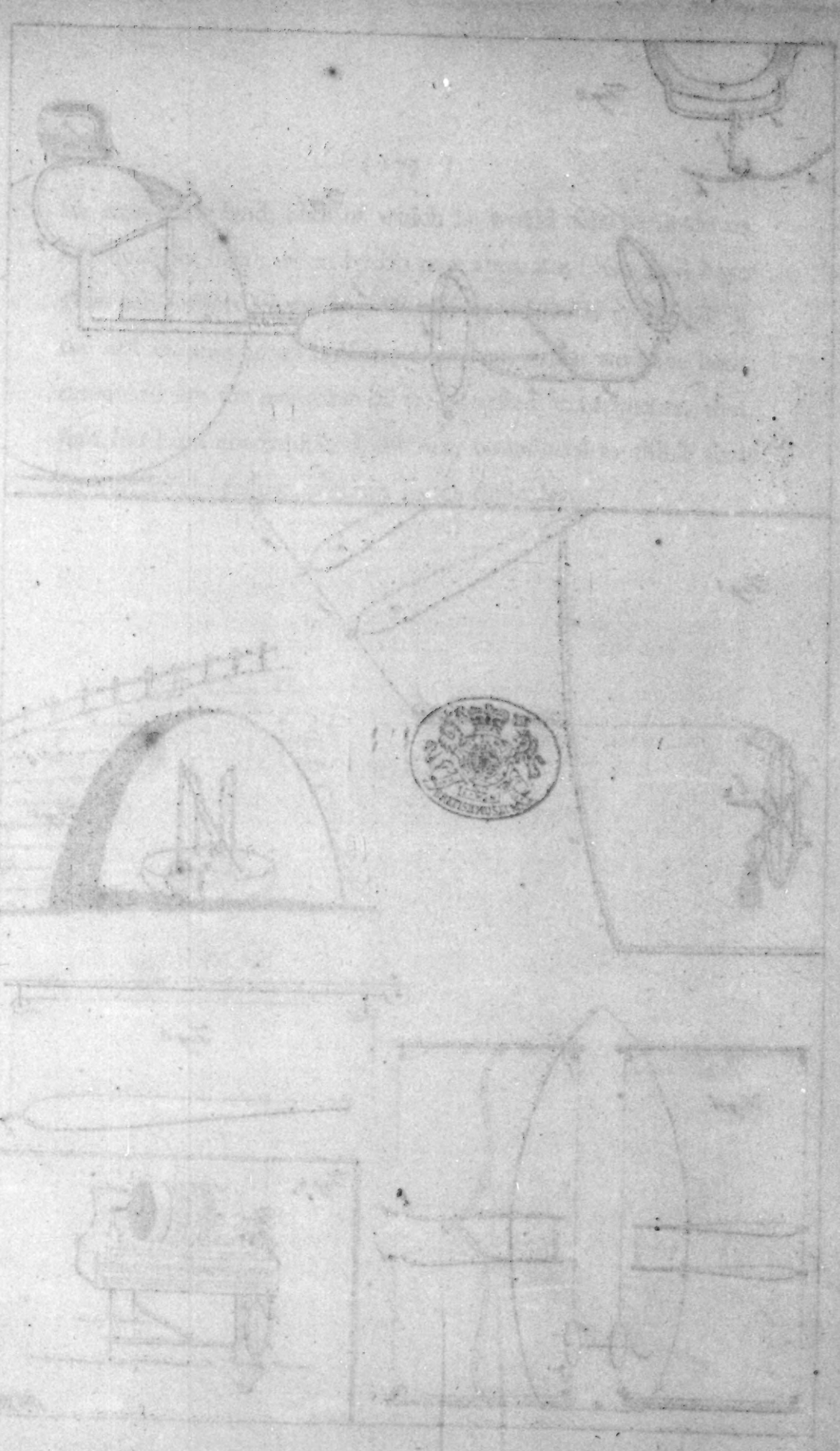
" A like apparatus being applied on the other ſide of the " boat, by means of other two bars; and the wheel round " which the rope belonging to the two laſt mentioned bars " moves, having the ſame axis with the former wheel, or " being in the ſame block with it having only a different groove, " ſo that the motion of the oars on both ſides of the boat " might take place at the ſame time; then if one man turns " the wheels by a winch alternately backwards and forwards, " while another ſitting at the handles of the oars, at the ſame " time puts them with an alternate motion in and out of the " water, the oars will produce their regular effect; and it is " apprehended that a conſiderable increaſe of mechanical " power will be gained, notwithſtanding the friction at the " pulleys, ſince any number of oars might be applied in like " manner by the ends of their blades to the ſame rope, on each " ſide; and as they would all move through equal ſpaces, " they might be united at their handles by a moveable ſtretcher " (expreſſed by dotted lines in Fig. 4.) in which caſe one man " of a ſide might poſſibly be ſufficient to guide five or ſix " oars, all of which the ſame power, applied to the wheels " by turning the winch, might put into motion at once.

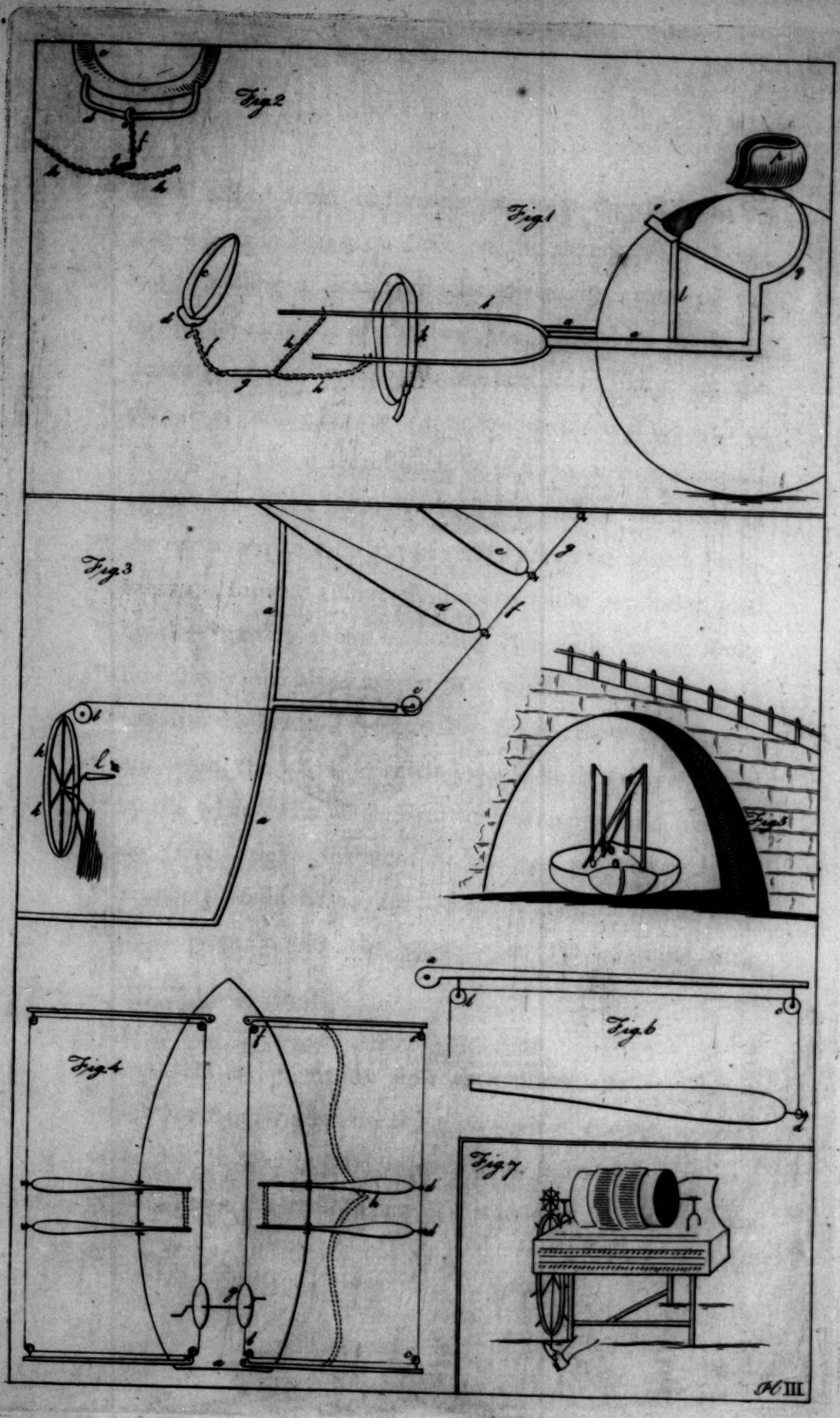
" To prevent the pulley-bars from yielding, by their elaſti- " city, to the draught of the oars, they might have a wooden

" ſtay

" ſtay ſtretched from one to the other (as expreſſed alſo by " dotted lines in Fig. 4.) a little on the outſide of the boat; " and by pulling a ſmall cord faſtened to the center of the " ſtay (h) on each ſide of the boat, the pulley-bars might be " drawn up perpendicularly over the boat (as in Fig. 5.) for the " purpoſe of paſſing between other boats or through the arch of " a bridge. The wheels ſhould be of a circumference at leaſt " equal to the ſpace through which the end of the blade of " the oar moves at each ſtroke: they are to be turned, back- " ward and forward alternately, for one entire revolution, and " by thus turning them backward, after each forward ſtroke " ſucceſſively, the blades of the oars would be brought again " towards the head of the boat in order to renew the ſtroke; " and whilſt the labour of rowing would be thus all performed " by the wheels, the whole that the boatmen would have to " do (who might therefore be reduced proportionably in " number) would be to direct the oars and take care to drop " them properly into the water upon the edges of their " blades."

It would be premature now to conſider the application which our Author gives us of his principle of rowing, to Ships of burden, in caſes of calm, as well as to boats and wherries; or to examine the conſtruction of his ice-boat and wheel-boat for






Pl. III

for navigating land, both of which he would fain perſuade us he could put into motion by his new apparatus: we ſhall have great ſatisfaction if we hear that his principle is applicable in the firſt inſtance to an ordinary boat, and when we have been convinced by the evidence of well-atteſted experiments, that that has been accompliſhed, we may be induced to think that the reſt might follow, without much difficulty.

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ARTICLE

## ARTICLE XI.

### CONSIDERATIONS ON OATHS.

THE Writer of this Tract, for no other reaſon, as we can conceive, than that of making up a book, begins it with ſetting forth a long ſeries of caſes of perjury, in which, with many grave reflections, he points out the greater or leſs degree of guilt incurred in each of them: but our limits will by no means allow us to travel with him through volumes of Crown Reports, much leſs through Burlamaqui, Puffendorff and Farinacius de Teſtibus; we ſhall attach ourſelves then, as we have invariably done, to that part of his book which is more practical; for as all morality lies in the compaſs of a few ſhort principles, (and, in the branch of it before us, is reducible to the ſimple poſition that we are at all times bound to ſpeak truth)

truth) that writer may be conſidered as employing himſelf to the beſt advantage of the public, who endeavours to ſtrike out practical inſtitutions, conformable to right principles, and ſuch as may be engrafted, without inconvenience, upon exiſting ſyſtems: this part of our Author's Treatiſe then we ſhall give, as we always like to do, for fear of miſtake or miſrepreſentation, in his own words.

" If, as I have endeavoured to ſhew above, the corruption " introduced into our elections to Parliament has encreaſed the " number of perjuries in a prodigious degree; if Cuſtom-" Houſe oaths are, in a manner proverbially, as often broken " as taken; if again, this crime of perjury too frequently " occurs even in judicial proceedings, notwithſtanding the awe " inſpired by a numerous audience and the venerable preſence " of a Judge; is it not expedient to reſort to new means for " reviving a due reſpect for truth, and a juſt ſenſe of the high " obligation of an oath? Now it appears to me that one prin-" cipal cauſe why the crime of perjury has been ſo frequently " committed, is, that the ſame ſort of oath, with the ſame " ſanctions, is uſed upon all occaſions alike: if you are to " ſpeak to a fact on which the property in a large eſtate, or " even the life of your neighbour may depend; if you are to " vote for a Member of Parliament and prove your right ſo

" to

" to do; or if you are to ſatisfy the Commiſſioners of the " Cuſtoms that you have ſhipped a bale of goods for exporta- " tion, you depoſe to the truth of all theſe facts in the ſame " tremendous form of words, So help you God.

" I would eſtabliſh then two ſorts of oaths, a leſs and a " greater; the firſt, of a lighter ſanction and puniſhment, the " ſecond, with both one and the other, heavier; let the geſture " too which accompanies the one be different from that of the " other; in the firſt let the hand be laid upon the breaſt; in " the ſecond, let it be ſtretched out and the eyes directed up- " wards to the ſeat of the Almighty: let the former call down " upon the ſwearer, in caſe of breaking the oath, miſery in " this life with the contempt and abhorrence of ſociety; let " the latter too have thoſe ſanctions, but coupled with the " dreadful invocation of the Almighty's remembrance of it in " an after-life: let that be puniſhed with fine, whipping or " impriſonment; this with the pillory and death. Upon all occa- " ſions let the minor oath be uſed in the firſt inſtance, and the " Magiſtrate be inveſted with the power of adminiſtering the " greater at his diſcretion, either in caſes of prevarication, or " where a witneſs has an intereſt in the matter in iſſue; ſo " however as not to affect any of the rules of law eſtabliſhed

" at

" at preſent in excluſion of the teſtimony of an intereſted wit-
" neſs, if his intereſt in the queſtion be conſiderable; but if it
" be but ſmall, then to admit his evidence, upon adminiſtering
" to him the greater oath.

" Conſider for a moment what an additional tendency ſuch
" an inſtitution would have to draw forth the truth, when an
" Advocate, armed with ſuch an engine, might threaten to
" move the Court for the greater oath, if he ſaw a witneſs in-
" clined to prevaricate: the awe inſpired by his ſolemnly
" making ſuch motion and deſcanting on the reaſons for it,
" the obſervations made by the Judge on granting it, the for-
" malities accompanying the adminiſtering it, would all ſerve
" to fill the audience, if not the hardened witneſs himſelf,
" with higher ideas of the nature of an oath, and give greater
" dignity and authority to Courts of Juſtice: and though it
" is obviouſly neceſſary that the diſcretion ſo veſted in a Ma-
" giſtrate ſhould be exerciſed with a cautious prudence, yet
" there is no queſtion that it would be ſafely depoſited with
" an upright and experienced Judge; and if it is objected that
" it would be too much to empower any Judge by the ſimple
" exerciſe of his own diſcretion, on the motion of a ſuſpicious
" Advocate, to pronounce ſuch an order for adminiſtering the
" greater oath, as would alter the offenſe of perjury from one

" puniſhable by fine and impriſonment, to another puniſhable " by the pillory and death; it may be obſerved that when " an indictment for the offenſe ſhould be afterwards framed, " in which among other counts there ſhould be one charging " it capitally, yet the Jury might be permitted to exerciſe the " ſame right of modelling their verdict, either to an acquittal, " or finding the culprit guilty of a breach of the leſs oath " (though the greater had been ultimately adminiſtered) or of " the greater itſelf, according to circumſtances; juſt as they " now exerciſe a right, when an indictment is laid as of grand " larceny or murder, of reducing by their verdict the offenſes " charged, to ſimple larceny or manſlaughter. For there cer- " tainly ſeems to be as much reaſon for diſtinguiſhing the " crime of perjury into different claſſes, as there is for eſta- " bliſhing the various ſpecies of larceny or homicide; the " circumſtances of falſe-ſwearing at an election-conteſt or upon " a fact on which a man's life or character may depend, " being not leſs diſtinguiſhable, or of leſs importance to be " diſtinguiſhed, than the differences between ſingle larceny and " burglary or juſtifiable homicide and murder."

We have inſerted this long extract, becauſe we were unwilling to interrupt the courſe of our Author's reaſoning: in the

the ſubſequent developement of his Plan, he goes on to enumerate ſome farther advantages which might probably ariſe from it; among which he mentions this, that the practice of adminiſtering juſtice would thereby become more uniform; for whereas the Quakers and ſome others are now permitted by law to verify their teſtimony by ſimple affirmation only, the general uſe of the leſs oath as propoſed, would reduce the practice, in giving the teſtimony of every body, to the ſame ſimplicity of an affirmation in the firſt inſtance, and thereby comprize the ſectaries of every branch of religion. He adds "that, when, according to the preſent practice, a man has "once perjured himſelf, it may be conceived that his heart "muſt be completely callous, and whenever afterwards be "imagined he might do it with impunity, having already gone "every poſſible length, he would not ſcruple to incur the "ſame guilt ever ſo often; but if the ſyſtem of two oaths be "adopted, of a leſs and greater ſanction, though a man might "perhaps incur the leſs guilt of falſe-ſwearing in the one, yet if "he were detected in prevaricating on a ſubſequent occaſion and "the greater oath were adminiſtered to him, it does not fol-"low that he would be willing to incur the higher guilt: "he might not dare to riſque the forfeiture of his hopes of

"happineſs

" happineſs hereafter, though he had invoked and incurred a " forfeiture of his claims to comfort and felicity in this life; " and thoſe who underſtand the motives by which human " conduct is influenced, know the value of ſuch a gradation " in moral inſtitutions."

Our Author enumerates ſome other advantages which might probably reſult from his ſuggeſtion, to which we ſhall add one ourſelves; namely, that whereas innovations in general, however productive of good, are yet often the ſources of miſchief from the unforeſeen changes which enſue upon them, it ſeems as if this inſtitution might be adopted without any change whatever, not only upon all other occaſions on which oaths are adminiſtered, but even in Courts of Juſtice alſo; every branch of law and rule of practice would remain, exactly as at preſent, untouched and unaltered, with only the greater oath ſuperadded and engrafted on them.

After having diſcourſed at ſome length on the nature of the Μεγας ορκος of the Greeks, as mentioned in Potter's Antiquities 220, our Author, towards the concluſion of his Treatiſe, has made ſome remarks on the Members of the Houſe

Houſe of Lords paſſing judgement " upon their honor;" but as we have given a general idea of his Work by the extracts inſerted from it, we muſt be under the neceſſity of poſtponing to a future Number our obſervations upon his other collateral topics.

*To be continued.*

ARTICLE

## ARTICLE XII.

### THE SAXON INVASION.

A POEM, IN SIX CANTOS.

IN reviewing our former Articles of Poetry, we have rather choſen to inſert the whole of ſmall pieces than extracts from larger ones, apprehending that that mode, whereever it could be adopted, would be more fair to the Author as well as more agreeable to the Reader: but the Poem before us, which celebrates that long courſe of events which intervened from the time of the firſt deſcent of the Saxons to their complete conqueſt of this country, has neceſſarily extended into ſuch a number of cantos, as render an adherence to that mode abſolutely impoſſible. In order however to keep as nearly to it as may be, we ſhall, for the preſent, offer the Reader the following little

little Epiſode, which is interwoven in the third canto, and may, without any great violence, be detached from the main body of the Work.

——— ——— ——— ——— ———

——— ——— ——— ——— ———

" Graſp firm your lances, champions brave,
" Your beavers cloſe, your banners wave,
" Mount, mount your eagle-winged ſteeds,
" And onward move to warlike deeds:
" One battle more, and fame, rich ſpoils,
" And Britiſh beauty all your toils
" Shall crown—theſe daſtards ſoon will fly,
" And yield a final victory."

So vaunts the Saxon—at each pauſe,
His hordes ſhout peals of loud applauſe,
Tumultuous—Meanwhile, undiſmay'd,
Hoel on 'vantage-ground array'd
His ſquadrons, each harangued by turns,
And fili'd them with like rage, as burns
His patriot boſom; " Soldiers! Friends!
" If to the valiant fortune lends

" Her aid, on you to-day ſhe'll ſmile,
" For you're the flow'r of this fam'd iſle:
" What tho' of late yond ſavage foe
" Hath giv'n our arms a caſual blow,
" From ambuſh aim'd? If, ſhield to ſhield,
" And lance to lance, in open field
" He thus dare meet you fairly, ſhew
" What Britons, thus engag'd, can do.
" Why came theſe fell invaders here?
" Why in throng'd ſhips, their deſerts drear
" Forſaking, have they croſs'd the ſeas,
" To your ſweet bow'rs of plenteous eaſe?
" Why, but to make thoſe bow'rs their own,
" And, whilſt in galling chains you groan,
" Your homes, your altars, all that's dear
" To violate—they're prowling here
" Like their own wolves, for blood—but ſee,
" They come; ſet ſpurs and follow me."—

He ſpoke, and while the archers pour
In rainbow-form, an arrowy ſhow'r,
The ſquadrons, ruſhing to the ſhock,
Falchion and lance together lock,

And

And battleaxe and mace; the ſtrife
One courage animates; for life
Each, man to man oppos'd, contends,
And, as the darkening duſt aſcends
In cloud-like wreaths, and ſhouts and cries
Clarions and trumpets pierce the ſkies,
Confuſion hovers o'er the heath,
And furious Rage, and Pain and Death.

Of all the noble champions ſlain
Who ſtrew'd, in heaps, the enſanguined plain,
In honor chief, of war the pride,
Struck thro' the helmet, Wallo died;
When Morva, (from her caſtle's height
Who view'd with anxious fear the fight)
As on a like white ſteed he rode,
With like-plum'd creſt and buckler broad,
Thought that in him her huſband fell,
And as juſt then the larum-bell
Some ſignal toll'd; " Hark, hark, my friends,
" There rings his knell, ſhe cried; the fiends
" Have kill'd my deareſt Lord!—He's gone—
" All's loſt—then now's no time to moan

" And ſhew the woman; bring me arms;
" Sound from the rampart loud alarms;
" And you, who valued Hoel's worth
" And hate theſe murd'rers, ſally forth,
" Reſolv'd, like me, ev'n death to brave
" Rather than crouch, the Saxon's ſlave."—

Swift on a courſer, croſs the plain
Frantic ſhe ſpeeds, all counſel vain,
Till grief, grown calmer, bends her way,
To where her fancied huſband lay;
There, ſcarce-alighted, with ſad plaints
Calling on Hoel's name, ſhe faints
Upon the corſe: but when ſhe gain'd
Her ſight, and view'd the head-piece ſtain'd
With guſhing blood, and, as ſhe knelt
Beſide the breaſt-plate, doubtful, felt
If warmth or ſenſe might yet remain,
And found all cold and lifeleſs; " Vain,
" Vain hope! ſhe cried, the breath is fled,
" The pulſe no longer beats, he's dead!"
His beaver then ſhe rais'd in part,
But (with a ſhriek, to pierce one's heart)

" Is

" Is this, again ſhe cried, the face,
" Now ſmear'd with gore, where ev'ry grace
" Of glowing health and manhood ſhone?
" And are thoſe comely graces gone?
" Was it for this his fame went forth
" For deeds of arms and generous worth,
" So ſoon to ſink in endleſs ſleep?
" And am I leſt to wail and weep?
" Too true; for ah, each bleſſing hung
" On him; the muſic of his tongue
" Alone could give my ear delight,
" His look alone could charm my ſight,
" And, now he's gone, nor wealth, nor ſtate
" Can ſoothe the anguiſh of my fate,
" Nor friendſhip.—Ev'n the child I bear,
" Late my fond hope, will bring deſpair;
" Doom'd, ere it ſees the light, to woe,
" The babe ſhall ne'er a father know:
" Was ever wretch then curs'd as I?—
" Yet ſhe's no wretch, that dares to die."—

Her hand ſhe rais'd; when one, with ſteed
And arms like Hoel's, at full ſpeed,

From a ſteep hill, bright-beaming far,
Shot downward like a falling-ſtar:
Hoel it was.—The routed foe
Chac'd to his ſhips, in overthrow
Complete; the Chief, midſt thouſands, ſlain;
The ſtrand, the waves dyed with the ſtain
Of Saxon blood; on wings of joy
Hoel brought news of victory.

And now, with tendereſt words, he cheer'd
His wife, o'erpow'r'd with tranſport; rear'd
Next, a glad trophy on the field,
Of corſlet, helm, and ſword and ſhield;
Then, when for friendſhip's ſake, one tear
Pious he'd ſhed o'er Wallo's bier,
Bent toward the caſtle: there, with pride
Of pomp, at faithful Morva's ſide
Pavillion'd high, in princely ſtate
And triumph well-deſerv'd he ſate;
And whilſt his Chiefs around the hall,
Where gorgeous ſpoils o'erhang the wall,
In plumes and ſumptuous ermin grac'd,
And each beſide his fair-one plac'd,

Quaff out of gold the ſparkling wine;
The minſtrels tune their harps divine,
And raptur'd bards, in matchleſs ſtrain,
Fight the late battle o'er again.——

*To be concluded in our next.*

# *MONTHLY CATALOGUE.*

## ARTICLE XIII.—A THOUGHT FOR PREVENTING A SHIP FROM MAKING LEE-WAY.

THIS Scheme, with many others relating to Navigation, was picked up at the door of the houſe in which the Society for the Improvement of Naval Architecture aſſembles: they might poſſibly have been dropped there by mere accident, though we rather fear they muſt have been rejected by that Society and ſo thrown away as not worth notice: however, as the Monthly Catalogue of a Review may be conſidered in much the ſame light as the Copy of a Common-Place Book, it is not ſurprizing, as we firſt gave the Foundlings an aſylum in our own Common-Place Book, that one of them by an eaſy tranſition ſhould have found it's way here. It is to the effect following.——

"As

" As the motion of the waves of the ſea is owing (exclu-
" ſively of the operation of tides and currents) to the continued
" impulſes of the wind upon it's ſurface, it is probable, from
" the nature of the cauſe, that the velocity of that motion in
" different ſtrata of the ſea, will be in due proportion to the
" nearneſs of the ſtratum to the ſurface, where the cauſe ope-
" rates, and diminiſh gradually from thence to a ſtate of reſt.
" If this be true, ſuppoſe that in gales of wind a hollow wooden
" globe of a competent diameter were let down from a ſhip
" into the ſea, ſo loaded with weights and by a cable of ſuch
" a length, that, though it would always be liable to be dragged
" upwards by the ſhip's motion, yet ſtill it ſhould ſink to a
" ſtratum of much leſs velocity than that of the ſurface;
" might it not be the means of preventing the ſhip, in ſome
" degree, from making lee-way? It is obvious that the figure
" of the machine ſunk ſhould be that of a globe, as one of
" any other ſhape would only oppoſe the reſiſtance of it's
" ſmalleſt area to the water; and a globe too might be eaſily
" ſeparated into quarters, which, when out of uſe might lie
" one within the other and take up but little room in a ſhip,
" and when uſed, might be ſpeedily faſtened together by hooks
" of iron."

ARTICLE

## ARTICLE XIV.—HINTS FOR THE IMPROVEMENT OF CARRIAGES.

THE very elegant and uſeful invention of a carriage has for theſe few years paſt been advancing moſt rapidly towards perfection; and the perch, the ſprings, the body and even the harneſs have all been much altered and amended: the performance before us which is the production probably of ſome Artiſt in Long-Acre, or of one of thoſe Amateurs,

Quos curriculo pulverem Olympicum
Collegiſſe juvat, metaque fervidis

Evitata rotis, details a variety of ſuggeſtions for farther improving this pleaſurable machine: with this view the Author (among other things) aſks, "Why the head of a phaeton might "not be conſtructed of parallel ſtripes of wood, with their "ends running in grooves in the ſame manner as the com-

"mon

" mon writing-table, in which you lock up your papers by
" drawing a cover of that ſort over them? From a chamber
" in each of the ſides of the ſeat of the phaeton might be
" drawn up a pannel (like the blind of a coach-door) on the
" top of which, being curved for that purpoſe, might reſt the
" head of the phaeton made of ſuch parallel ſtripes of wood,
" which ſhould be drawn up from the back of the phaeton,
" and when out of uſe, might lie concealed in a ſpace extend-
" ing from the top of the back quite under it to the end of
" the foot-board. It might be made of a length (the firſt
" foot of it being for that purpoſe a curved pannel, and not,
" like the reſt, made of ſtripes of wood) to project about a
" foot beyond the upright pannels drawn up out of the ſides
" and thereby give a better ſhelter before. This head might
" be drawn backwards and forwards, in part or in whole, at
" pleaſure, juſt like the writing-table before-mentioned; and,
" the outſide of the ſtripes of wood being protected from the
" weather by a cover of oiled cloth, it would be difficult per-
" haps to conceal the head of a phaeton better or to frame it
" of lighter materials and capable of more ornament by paint-
" ing, plated-work, &c. &c."

ARTICLE

## ARTICLE XV.—A PROPOSAL FOR THE ESTABLISHMENT OF A BOARD OF CIVIL ENGINEERS.

THE Author of this Pamphlet profeſſes to have taken the model of the eſtabliſhment which he recommends from that *des ponts et chauſſées* which exiſted under the old Government of France: his Plan however comprizes a much greater variety of objects than that eſtabliſhment did, as he wiſhes to extend the operation of it over moſt of the different branches of practical mechanics.—On the whole, we like his propoſal very much; though, on conſidering the other matter with which it is intermixed, one is almoſt tempted to think that, incaſe the Board which he recommends ſhould be eſtabliſhed, the Gentleman might not be diſinclined to accept a ſeat at it himſelf.

ARTICLE

## ARTICLE XVI.——A PROSPECTUS OF AN ELEMENTARY GAZETTE.

THE Author of ~~this~~ the Pamphlet containing this Proſpectus, after detailing many of the advantages of which a Newſpaper is productive, notwithſtanding the ſhameful abuſes to which it is daily proſtituted, propoſes a Plan by which he conceives it might be made ſtill more extenſively uſeful: he is ſo ſanguine indeed as to think, that it might become the inſtrument of teaching the rudiments of every language, art and ſcience (and particularly of geography, a ſubject more connected with a Newſpaper than any other) in the moſt eaſy and expeditious manner poſſible.—With this view, he intends that the fourth page of his propoſed Gazette ſhall be always taken up by a Mercator's Projection of the Globe at the top, and, underneath it, the four quarters of the earth in as many compartments, with the proper deſignations of latitude and longitude; that

the margin of it's third page, which is to be of a competent width, ſhall in like manner be occupied by geographical ſketches, not permanent but occaſional, ſo as to have a reference to the particular diſtricts or provinces, of which mention ſhould be made in the Gazette of the day; the whole from wooden blocks in the leaſt expenſive manner poſſible: that at the top of the firſt page ſhall be placed, as regularly as the title of a common Newſpaper, the letters of the alphabet, reduced to their genuine number (" for, ſays the Pamphlet, we acknowledge more than really exiſt") and in their true ſimplicity, without capital letters, double ſs', or other uſeleſs ſymbols: the margins of the ſame, firſt page, and of the ſecond alſo, are always to be occupied by ſimple examples of the four common rules of arithmetic, a few of the firſt propoſitions of geometry and mechanics, the muſical gamut, &c. &c. &c.: the middle of the three firſt pages is to contain an account of the common occurrences of the day, with advertizements, as uſual: theſe laſt, exciting that univerſal intereſt which they are ordinarily found to do, will give, as the Author imagines, a ſimilar currency to his intended Gazette with it's new appendages; " And they thus, ſays he, like the contents of a com-
" mon Newſpaper, falling under the eye of children, and
" deſcending even to the cottage and the manufactory, will
" not fail to raiſe a ſtrong curioſity in all; the ſpirit of enquiry
" being

" being once raiſed, the means of ſatisfying it will in ſome " degree be at hand, exiſting in the Paper itſelf; an inclination " to ſeek farther will follow; perſons properly informed will " often be near, to explain difficulties; new ideas will be im- " bibed; new fields of amuſement laid open; the rudiments " of all ſorts of knowledge (which are the only diſcouraging " parts of learning) will be thus, imperceptibly, attained with- " out coſt, or pains, or expenſe of time; and thouſands may " enter on the ſtudy of various arts and ſciences, perhaps to " make improvements in them, who would otherwiſe be " doomed to paſs their lives in utter ignorance."

Such is the outline of the Proſpectus, and ſuch are the Author's hopes from it; we wiſh with all our hearts they may be realized: in the mean time, as the Paper is to come out, it ſeems, once a week, we ſhall not fail to take it in and give it all the encouragement in our power.

## ARTICLE XVII.—AN IMPROVEMENT OF THE FIRE-ENGINE.

THE title of this Tract announces ſomething very important, but the whole reſolves itſelf into a ſuggeſtion, that, as the water is at preſent ſcattered from the fire-engine, for the moſt part at random and often therefore to no purpoſe, by reaſon of the perſon who directs it not being placed high enough to ſee where it might be poured with beſt effect, it might be deſirable that his power ſhould be encreaſed, by raiſing him more nearly to a level with the tops of the houſes on fire. To accompliſh this the Author recommends "that to "the top of a ſtandard or ſhaft, fixed upon wheels in order to "it's being moved about at pleaſure, there be applied a ſtrong "lever acting upon a great hinge, one of the arms of which "lever ſhould be two or three times as long as the other; "and that at the end of the longer one (which might be bent "upwards)

" upwards) there ſhould be a platform or ſtage, duly protected
" by a rail and ſufficiently large to contain a moderate-ſized
" engine with men enough to work it: when brought into
" uſe, the ſtage with the engine and men upon it, might be
" forced upward, by drawing the ſhorter arm of the lever
down, by means of the ſtrength of the ſurrounding croud,
" and there holding or faſtening it: the director of the
" engine would not only in ſuch a ſituation have a much
" greater command over the deſtructive element which it is
" his object to ſubdue; but it is poſſible that ſuch a machine
" might often be made uſeful likewiſe for the preſervation of
" property and life, by taking goods or perſons in danger, out
" of windows or from roofs of houſes upon it."

ARTICLE,

## ARTICLE XVIII.—REMARKS ON CERTAIN ARTICLES OF ORNAMENTAL FURNITURE.

IF in reviewing a former Article of our Monthly Catalogue we had occaſion to imagine that the Author of it might reſide at no great diſtance from Long-Acre, we are much miſtaken if the Gentleman whoſe performance is now before us, does not exerciſe ſome honeſt calling ſtill farther eaſtward in the City: but whereever a Compoſition comes from, it is our duty as Reviewers to preſerve our impartiality unimpeached, and as we have uniformly done the ſame thing by others, it might appear unjuſt if we did not in like manner offer a ſpecimen or two of the Work now under our eye.

" It is undoubtedly true, ſays the Author, that a print or " drawing never looks ſo well as when it is viewed in a " frame; which, forming a ſort of ſkreen for it, excludes all

" other

" other objects from that attention, which ſhould be confined
" wholly to the print or drawing. But the common frame
" with which we decorate our apartments, would be ſome-
" what improved perhaps by making it in ſuch a manner,
" that it's front might be lifted up from the back-part by
" means of hinges at the top: the ſpace within might be made
" deeper ſo as to contain a great many ſheets of prints or
" drawings, which being faſtened (by two loops to each) to
" the four ſides of the frame and laid one on the other from
" the four ſides alternately (the back of each having ſome
" ſilver-paper attached to it for the protection of the one be-
" neath, and the loop-holes being ſecured by parchment) a
" great variety might be produced in that ornamental article
" of furniture, by exhibiting different pieces from time to time
" in the ſame frame; ſets of prints on hiſtorical or other ſub-
" jects might be thereby viewed in ſucceſſion; and if a ſtand
" were applied to the back like that of a dreſſing-glaſs, the
" frame, when unhung, might be placed commodiouſly on a
" table, in which ſtate it's contents might be ſurveyed at a
" leſs riſque of accidents, and to a much better effect, than
" by the troubleſome method of a portfolio.

" And as one often ſees very beautiful prints hung up ſo
" high in their frames as to be out of the reach of obſerva-

" tion, it might perhaps be a farther improvement, if to all " the upper frames in an apartment, weights were fixed to " counterbalance them, ſuch weights to be attached to lines " paſſing over ſmall braſs-pulleys, forming a part of the ſcrews " by which the frames are ſuſpended, ſo that the frames might " be capable of being drawn up or down at pleaſure to be " brought nearer to the eye, and the prints or drawings more " eaſily changed; and if it ſhould be apprehended that the weights would have an unſightly appearance, they might be " entirely concealed behind, or might be attached to the lower " frames, which lower frames then conſtituting a part of the " weights themſelves by which the higher are balanced, would " be puſhed upwards and paſs underneath the higher ones, " whenever it were wiſhed to draw the latter down."

We ſhall give one more extract from this Performance, as it relates to an object in which we ſhould be glad to ſee ſome improvement introduced, however our Author may have ſucceeded or failed in the ſuggeſtion which he gives us; as we need only conſider it a moment, to be ſenſible of the awkwardneſs ariſing to the harpſichord-player, and inconvenience to the byſtander, from turning over the leaves of a long piece of muſic.

" If,

" If, ſays the Author, muſic were printed on long ſcrowls " inſtead of the leaves of a book, ſuch ſcrowls might be laid " upon a hollow cylinder placed horizontally before the player, " and there faſtened at their top by ſliders fixed to the ſides " of the cylinder, as the leaves of a muſic-book are at preſent " kept down by ſliders on it's ſtand: the cylinder (a ſketch of " which is given in Fig. 7, Pl. 3.) might be about fifteen or " eighteen inches in diameter, and being made of a thin piece " of iron, might be plated with ſilver or otherwiſe ornamented " at pleaſure, and if left open at the ends, would by no means " have a heavy appearance. A cylinder ſo prepared might " become the ſtand for the ſupport of the ſcrowls of muſic, " and might move on an axis terminating on the left-ſide in " a ſmall wheel, the cogs of which ſhould correſpond with " thoſe of a larger light wheel, moving perpendicularly and of " the ſame height with the harpſichord; the ſpokes of which " laſt wheel ſhould have catches to them at ſuch a diſtance " from each other, that the foot of the player (which is now " to perform the whole operation) having, by touching one " catch, given a movement to the larger wheel and thereby " to the cylinder, the latter by ſuch impulſe ſhould paſs " through the ſpace of an ordinary muſic-page, and, that being " done, the toe of the foot ſhould alight upon the next ſuc- " ceeding catch and ſtop it's farther progreſs till the player

" pleaſed to move it again. The muſic might ſtill be printed
" in two columns anſwering to the two pages of a book, the
" portions of ſuch columns being about the length of ordinary
" muſic-pages; and ſeveral pieces of muſic might be ſewed
" together and bound at one of their ends, and the ſheets too
" printed on both ſides as at preſent, but ſo as never to give
" occaſion to go out of the ſame folio. To fix or unfix the
" ſcrowls from the cylinder would be the operation of a mo-
" ment only, and when not in uſe, they might have, for the
" purpoſe of binding them up, a looſe piece of leather at the
" back of the laſt ſheet, on which the contents might be
" lettered, and in which the whole might be wrapt up and
" protected from duſt and injury, like the different membranes
" of a roll of records."

## ARTICLE XIX.—POEMS ON SEVERAL OCCASIONS.

WE have here more Poems under the old well-known title; and the old motto prefixed to them, hìc cæſtus artemque repono!—Well; as we are acquainted with the Author and are not without ſome regard for him, we will give a place to one of his Compoſitions, but upon this poſitive ſtipulation, that he ſhall pay the ſtricteſt attention to his motto, and that we do not catch him offending in this way any more.

His Collection, like others under the ſame title, conſiſts of Sonnets, Tales, Parodies, &c. &c.: we were ſomewhat inclined to offer the Reader one of the laſt, purporting to be a Parody upon the famous Soliloquy of Cato, which has been ſo often parodied before, but on ſecond thoughts we refer him to the Collection itſelf for it, as being of rather too grave a caſt for

our preſent purpoſe; for we are obliged to confeſs that the Poetical Pieces which we have hitherto had occaſion to review, have been of a leſs cheerful kind than might have been wiſhed; and as we are about to take leave of the Reader very ſoon, it is of ſome conſequence (to us, at leaſt) that we ſhould part in good humour with each other: beſides, we are ourſelves very fond of maſquerading, if not of quackery, as the Reader may have diſcovered already, and the Author tells us in a Note to the Piece which we have ſelected for inſertion, that it was diſtributed in the ſhape of a hand-bill by a Gentleman in the character of a foreign Quack Doctor, at a ſplendid Maſquerade given at Wargrave in Berkſhire, by a late unfortunate Nobleman in the ſummer of 1790.

Newly arrived,

DOCTOR KATANTROBUS VAN-GALEN, M, D; F, R and A, S: A, B, C, D, E, F, &c. &c.

I.

Ye ſwains and ye nymphs, who're devour'd with ennûi,
Thro' ill luck at dull whiſt or by ſipping ſmall tea,
All you, for the Spleen who of phyſic have need,
Come, follow your Doctor to *Wargrave* with ſpeed.

Tho'

II.

Tho' a Quack I appear, yet I there keep a ſhop,
Which the country all knows has been well fitted up;
There, for pills and decoctions, you've jellies and fruits,
And, for peſtles and mortars, gay fiddles and flutes.

III.

There, on labels inſcribed, fit for each patient's cure,
Is every thing ready, except *Aqua Pur:*
And of all ſuch a plenty, I'm ſure there's enough
The whole county to phyſic with choice Doctor's-ſtuff.

IV.

Thither other than Vitus's Dancers reſort,
And thoſe, who ſeem dropſied, have ſkins full of Port,
And if many light-headed by chance you ſhould ſee,
Such are juſt in the criſis of humour and glee.

V.

Far other than that of Hyſterics their laugh,
Far other than nauſeous the phials they quaff,
For the draughts ~~of~~ which thoſe phials, yon bottles, contain,
Are Burgundy, Claret, Old Hock and Champaigne.

VI.

Then take off your doſes and ſwallow your pills,
And away with all fear about paying my bills;
With the help of *My Lord* I diſpenſe, without fee—
Come, here's his good health then with thrice three times three.

ARTICLE

## ARTICLE XX.—A NEW REVIEW.

"YES, Gentlemen, this Alter et Idem! You do not mean "to let it eſcape your notice: if you have met with it, you will "not fail to review it."

We have ſeen it indeed, Sir, and a great deal might be remarked upon it, but—

"But what? Gentlemen! If you obſerve upon it any where, "you cannot do it in a more fit place than at the end of a "Monthly Catalogue."

True, Sir! and you ſee we have choſen that place accordingly; but you will remember that the thing you mention has not been publiſhed yet.—

" It is on that account more properly within your own " Plan, ~~Gentlemen~~, as announced in your Advertiſement; that " excuſe can by no means ſerve you."

We muſt honeſtly confeſs then that it goes againſt us to review it at all; we cannot help thinking that the undertaking of one Society of Reviewers to criticize the Review of another, would be almoſt as prepoſterous as an Author's reviewing his own Book: it would amount to a violation of the Eſprit de Corps, and would therefore ill become us in our firſt Number.—

" No more apologies, for Heaven's ſake, Gentlemen! What- " ever you may do yourſelves, if you think that other Re- " viewers will abſtain from criticizing this Production, you are " greatly deceived, depend upon it."

Well, Sir! If you muſt have our opinion, be it ſo: we do think it then a Review of an entire new kind indeed; a compound of the moſt——We beſeech you, ſpare us: let us beg you to take the pen and finiſh the ſentence for us.—It muſt be ſo indeed, Sir!

## *MONTHLY CORRESPONDENCE.*

IT may appear extraordinary perhaps that we ſhould have any thing to inſert under this head in the firſt Number of our Review; but it had been handed about in manuſcript before it was printed, and a few of our well-wiſhers (and of thoſe "good natured friends" too deſcribed by Sir Fretful Plagiary) having done us the favor of ſending us their hints by letter, it may not be improper to notice ſome of them.

To *Amicus*, who ſo ſtrongly exhorts us not to pubiſh our Review, from an apprehenſion that we may ſubject ourſelves to damages, for invading the Copy-Right of Authors, and diſcloſing inventions for which the Projectors of them might have obtained patents; we anſwer, with many thanks, that we never

intended to publiſh; and as for the apprehenſion he expreſſes, though we are much obliged to him for it, yet having taken Counſel's opinion on the ſubject, we reſt ſatisfied under that authority, that if any actions ſhould be brought we ſhall ſcarcely fail to nonſuit them.

To another Correſpondent under the ſame ſignature, who adviſes us not only to publiſh this our preſent Review, but to continue the future Numbers of it regularly; we anſwer as before to the firſt point, and as to the future Numbers, we ſhall do ourſelves the pleaſure of ſubmitting them to him in manuſcript, (for we know who he is by his hand-writing) and he will then be better able to adviſe us.

*Faſtidioſus* is informed that we have already made great uſe of the pruning-knife, if not of the file; and he may judge of the quantity of *traſh*, as he calls it, which we have omitted, by the quantity which we have inſerted.

*Curioſus* aſks us for the bill of fare of our next Number.—We fear we ſhall have no Tragedy or Comedy for him, but, as he better imagines, we are more likely to have ſomething to do with a Farce: and, beſides continuing the ſubjects left unfiniſhed in this Number, we ſhall, among other projects,

examine

examine one for the Diſcovery of the Longitude, another for finding the Philoſopher's Stone, and a third, containing a moſt ingenious but elaborate proceſs for ſetting the Thames on fire.

We thank *X* and *Y*, for the mottos they reſpectively recommend us, " Strenua nos exercet inertia, and " Hæ nugæ ſeria ducunt in mala ;" but though we admit that either of them might ſuit us better perhaps than the one which we have choſen, yet, a few ſheets having been printed off before their letters came to hand, our title-page was amongſt them and it was too late to alter it.

An anonymous letter ſuggeſts to us a Greek title for our Review, but moſt people will think it ſufficiently pedantic, we fear, that we have adopted a Latin one; and, beſide the reaſon aſſigned in the anſwer to our laſt Correſpondents, there are many other prudential reaſons for our ſticking by *Alter et Idem*.

THE END.

examine one for the Discovery of the Longitude, another for finding the Philosopher's Stone, and a third, containing a most ingenious but elaborate process for setting the Thames on fire.

We thank X and Y, for the mottos they respectively recommend us, "Strenua nos exercet inertia, and "Hæ nugæ seria ducunt in mala;" but though we admit that either of them might suit us better p[illegible] the one which we have chosen, yet, a few sheets [illegible] printed off before their letters came to hand, our title-page was amongst them and it was too late to alter it.

An anonymous letter suggests to us a Greek title for our Review, but most people will think it sufficiently pedantic, we fear, that we have adopted a Latin one; and, beside the reason assigned in the answer to our last Correspondents, there are many other prudential reasons for our sticking by *Alter et Idem*.

THE END.